Domestic violence by and against men and women in Curacao

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A Caribbean study

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Domestic violence by and against men and women in Curaçao
A Caribbean study

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door

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SUMMARY

The available domestic violence literature offers few clues on the situation in the Caribbean. General violence indicators support the assumption of high prevalences, but how these may be affected by, for example, gender relations and family structures is unclear. Reliable statistical data on the prevalence, nature, and consequences of domestic violence are not available, the prevalence of domestic violence in Curaçao has never been studied before. The central question of this thesis is: What are the prevalences, risk factors and consequences of domestic violence against men and women on Curaçao?

Curaçao is an autonomous country within the Kingdom of the Netherlands, located in the southwestern Caribbean, and has a population of 140.000. The island's population comes from many ethnic backgrounds. For its size, the island has a considerably diverse economy which does not rely mostly on tourism alone as is the case on many other Caribbean islands. International financial services, the harbor and trade are important economic sectors as well. In contrast to the relatively isolated Western-style nuclear family, family structures in the Caribbean are often characterized by matrifocal, (grand)mother-dominated households with several generations living in the same house or in houses built close to each other on a compound, sharing resources and carer's duties.

Domestic violence is a pattern of abusive behaviors by one or both partners in an intimate relationship such as marriage, dating, family, friends or cohabitation. Domestic violence against adults can be divided into three main categories: psychological, physical and sexual violence. Other relevant aspects of domestic violence are initiation, intention and motivation: 'common couple violence' is distinguished from 'intimate terrorism'. Common couple violence is expressive and characterized by minor forms of violence. Intimate terrorism on the other hand is instrumental, to control, subdue, and reproduce subordination. Compared to common couple violence, it is more rare and serious, tends to escalate over time, and peaks after separation.

When surveying sensitive topics, serious underreporting of the phenomena under study is a grave danger to the validity of the data. Domestic violence is a prime example of a sensitive topic, as it concerns behavior that is socially frowned upon, may be illegal, and concerns the private domain. A special mixed-mode survey was designed to assess the prevalence of domestic violence on Curaçao and its health consequences. Great care was taken to reduce selective non-response and stimulate open and honest responses on this topic. Our study clearly shows that respondents from different demographic segments have different preferences as for type of data collecting mode. Overall, almost a quarter of our respondents chose a face-to-face interview, while for the segment of low educated, elderly people, the interview option was chosen by over half of the respondents. This supports our expectations that a mixed mode approach pulls in those respondents that we would have missed if we restricted ourselves to a single mode approach. The tailored mixed-mode strategy leads to higher number of completed questionnaires, and restores partly the non-response bias by pulling in more lower educated and elderly, groups that are in general underrepresented.

The results of this study indicate that one out of three people (25% of men, 38% of women) in Curaçao have experienced some form of domestic violence as adults, and the lifetime victimization rates are 39% of men, 51% of women. The most significant risk factors for domestic violence in Curaçao are the female gender, a young age, low education and experiencing domestic violence victimization in childhood. Divorce, single parenthood and unemployment increase the risk for women, but not for men. Possible explanations for the high victimization rates of divorced women are the fact that domestic violence rates spike during separation and higher denial rates among couples who are still together: domestic violence victims that are still in a relationship with their abuser are less likely to communicate their experiences in this type of survey than separated victims are.

Domestic violence against women on Curaçao is for the most part (ex-) partner violence. Against men, it is primarily violence from parents, family and friends. Parents are the main perpetrators of domestic violence against children, except for sexual violence, which is primarily perpetrated by family members and friends. The majority of the Curaçao victims of physical domestic violence have experienced more severe forms of abuse, like being hit with objects.

Men and women have similar rates of committing domestic violence; this is consistent with findings in Western countries. The self reports reveal that 25%-33% have committed psychological domestic violence, 11%-17% physical violence and 1%-6% sexual violence. Antecedents of perpetrating domestic violence are similar for both sexes, too. Being a victim of domestic violence increases the probability to become a perpetrator for both genders, especially in case of severe physical violence victimization. Other perpetrator risk factors are a high education for perpetrating psychological violence, and having children in the household for perpetrating physical violence.

Curaçao is a collectivist country, which is associated with higher male perpetration rates, with a matrifocal orientation and high gender empowerment, which is associated with gender similarity in perpetration rates. Since we found gender similarity in the perpetration rates on Curaçao, we conclude that the influence of gender empowerment seems to be more decisive than the collectivistic/individualistic society dimension. Nevertheless we should interpret these results with caution, since we have measured domestic violence perpetration rates and not intimate partner violence perpetration rates. It is still very well possible that intimate partner violence is more often perpetrated by men, and that women direct their aggression more towards other family members, like children.

Consistent with the current international literature, we found a strong association between different forms of abuse and negative healthcare outcomes. Victims of domestic violence have worse self assessed health, more health problems and more health care use than non-victims. All types of violence (psychological, physical and sexual) have specific effects on the victims health and consequently on the medical use and costs.

Further research on the context, nature and severity of domestic violence in the Caribbean is necessary. Studies should preferably combine the strengths of national crime surveys and family conflict studies: nationally representative samples (including men and women), and questionnaires that include all possible experiences of psychological, physical and sexual assaults by current and former partners, family and friends.

SAMENVATTING

De beschikbare literatuur over huiselijk geweld biedt weinig aanknopingspunten over de situatie in het Caribisch gebied. Algemene geweldsindicatoren geven de indruk dat hoge prevalenties verwacht kunnen worden, maar in hoeverre deze worden beïnvloed door bijvoorbeeld man/vrouw verhoudingen en gezinsstructuren is onduidelijk. De prevalentie van huiselijk geweld in Curaçao is nog niet eerder onderzocht; betrouwbare statistische gegevens over de prevalentie, aard en de gevolgen van huiselijk geweld zijn niet beschikbaar. De centrale vraag in dit proefschrift is: wat zijn de prevalenties, risicofactoren en gevolgen van huiselijk geweld tegen mannen en vrouwen op Curaçao?

Curaçao is een autonoom land binnen het Koninkrijk der Nederlanden, gelegen in het zuidwesten van het Caribisch gebied, en heeft een inwoneraantal van 140.000. De bevolking van het eiland heeft diverse etnische achtergronden. Het eiland heeft, de beperkte grootte in aanmerking genomen, een sterk gevariëerde economie die niet afhankelijk is van alleen toerisme, zoals vaak het geval is op andere Caribische eilanden: internationale financiële diensten, de haven en handel zijn ook belangrijke economische sectoren. In tegenstelling tot de relatief geïsoleerde westerse nucleaire familie, worden familie structuren in het Caribisch gebied vaak gekenmerkt door matrifocale, (groot)moeder gedomineerde huishoudens met verschillende generaties die in hetzelfde huis wonen of in dicht bij elkaar gebouwde huizen op een compound, waarbij bestaansmiddelen en zorgtaken gedeeld worden.

Huiselijk geweld is een patroon van gewelddadig gedrag door één of beide partners in een intieme relatie zoals in een huwelijk/samenwonen, verkering, familie of vriendschap. Huiselijk geweld tegen volwassenen kan worden onderverdeeld in drie hoofdcategorieën: psychisch, fysiek en seksueel geweld. Andere relevante aspecten van huiselijk geweld zijn aanleiding, intentie en motivatie, waarbij 'common couple violence' wordt onderscheiden van 'intimate terrorism'. Common couple violence is expressief, en wordt gekenmerkt door lichte uitingen van geweld. Intimate terrorism is bedoeld om te onderwerpen, te controleren en ondergeschiktheid te bewerkstelligen. Vergeleken met common couple violence is het zeldzamer en ernstiger, escaleert vaak na verloop van tijd, en bereikt een hoogtepunt wanneer de relatie verbroken wordt.

Bij het onderzoeken van gevoelige onderwerpen is onderrapportage een serieuze bedreiging van de validiteit van de gegevens. Huiselijk geweld is een schoolvoorbeeld van een gevoelig onderwerp, omdat het gaat om gedrag dat wordt afgekeurd, soms illegaal is, en betrekking heeft op de privé-sfeer. Speciaal voor dit onderzoek is een mixed mode onderzoeksopzet ontworpen, waarmee de prevalentie van huiselijk geweld op Curaçao en gevolgen voor de gezondheid zijn onderzocht. Er is daarbij in het bijzonder zorg gedragen voor het beperken van selectieve non-respons en het stimuleren van open en eerlijke antwoorden over dit onderwerp. Deze studie toont duidelijk aan dat respondenten uit verschillende demografische segmenten verschillende voorkeuren hebben voor de wijze van gegevens verzameling. Van alle respondenten koos bijna een kwart voor een face-to-face interview, terwijl binnen het segment van laag opgeleide, oudere respondenten voor een interview werd gekozen door meer dan de helft van de respondenten. Dit ondersteunt de verwachting dat een mixed mode onderzoeksopzet respondenten binnenhaalt die zouden ontbreken als we ons beperkt hadden tot één manier van data verzamelen. De mixed mode strategie leidt tot een hoger aantal ingevulde vragenlijsten, en herstelt gedeeltelijk de non-respons bias door meer lager opgeleiden en ouderen te laten participeren; groepen die in het algemeen ondervertegenwoordigd zijn in dit soort onderzoek.

Uit de resultaten van deze studie blijkt dat één op de drie mensen (25% van de mannen, 38% van de vrouwen) op Curaçao huiselijk geweld als volwassene heeft meegemaakt, en bijna de helft (39% van de mannen, 51% van de vrouwen) ooit in hun hele leven. De belangrijkste risicofactoren voor huiselijk geweld in Curaçao zijn de vrouwelijk sekse, een jonge leeftijd, een laag opleidingsniveau en slachtofferschap van huiselijk geweld in de kindertijd. Echtscheiding, alleenstaand ouderschap en werkloosheid verhogen het risico voor vrouwen, maar niet voor mannen. Mogelijke verklaringen voor de hoge prevalentie van slachtofferschap bij gescheiden vrouwen zijn het gegeven dat huiselijk geweld vaak zijn hoogtepunt bereikt tijdens een scheiding,

en hogere percentages ontkenning bij paren die nog steeds samen zijn: slachtoffers van huiselijk geweld die nog een relatie met hun agressor hebben, zijn minder geneigd om hun ervaringen in dit soort onderzoek te vermelden dan gescheiden slachtoffers. Huiselijk geweld tegen vrouwen op Curaçao is voor het grootste deel (ex-) partner geweld, tegen mannen is het vooral geweld van ouders, familie en vrienden. Ouders zijn de belangrijkste daders van huiselijk geweld tegen kinderen, met uitzondering van seksueel geweld, wat voornamelijk wordt gepleegd door familieleden en vrienden.
De meerderheid van de slachtoffers van fysiek huiselijk geweld op Curaçao heeft te maken gehad met relatief zware vormen van mishandeling, zoals geslagen worden met een voorwerp.

Mannen en vrouwen hebben ongeveer dezelfde prevalenties van het plegen van huiselijk geweld; dit is in overeenstemming met resultaten uit onderzoek in westerse landen. Uit de zelfrapportages blijkt dat 25-33% psychisch huiselijk geweld heeft gepleegd, 11% - 17% fysiek geweld en 1% - 6% seksueel geweld. De antecedenten van het plegen van huiselijk geweld plegen zijn ook ongeveer gelijk voor de beide seksen. Slachtofferschap van huiselijk geweld verhoogt de kans om een dader te worden voor zowel mannen als vrouwen, met name in geval van slachtofferschap van ernstig fysiek geweld. Andere risicofactoren zijn een hoog opleidingsniveau voor het plegen van psychisch geweld, en de aanwezigheid van kinderen in het huishouden voor het plegen van fysiek geweld. Curaçao is een collectivistisch land, wat geassocieerd wordt met hogere prevalenties van mannelijk daderschap, met een matrifocale oriëntatie en een hoge gender empowerment, waarbij doorgaans weinig sekse verschillen in de prevalentie van daderschap gevonden worden. Omdat we in dit onderzoek nauwelijks sekse verschillen in de prevalentie van daderschap gevonden hebben, concluderen we dat de invloed van gender gender empowerment meer doorslaggevend is, dan of de samenleving eerder collectivististisch, dan wel individualistisch is. Wel is de nodige voorzichtigheid geboden bij het interpreteren van deze resultaten, omdat wij de prevalenties van huiselijk geweld hebben gemeten, en niet de prevalenties van partnergeweld. Het is heel goed mogelijk dat partnergeweld vaker gepleegd wordt door mannen, en dat vrouwen hun agressie op andere familieleden richten, zoals bijvoorbeeld kinderen.

In overeenstemming met de huidige internationale literatuur, vonden we een sterke associatie tussen verschillende vormen van slachtofferschap en een slechtere gezondheid. Slachtoffers van huiselijk geweld beoordelen de eigen gezondheid als slechter, hebben meer gezondheidsproblemen en gebruiken meer gezondheidszorg dan niet-slachtoffers. Alle vormen van geweld (psychisch, fysiek en seksueel) hebben specifieke effecten op de gezondheid van de slachtoffers en daardoor op het gebruik van medische zorg en de bijbehorende kosten.

Verder onderzoek naar de context, de aard en de ernst van de huiselijk geweld in het Caribisch gebied is noodzakelijk. Studies zouden bij voorkeur de sterke punten van nationale criminaliteitsenquêtes en familie conflict studies moeten combineren: nationaal representatieve samples (waarin zowel mannen en vrouwen vertegenwoordigd zijn), en vragenlijsten waarin alle mogelijke ervaringen van psychisch, fysiek en seksueel geweld door huidige en voormalige partners, familie en vrienden zijn opgenomen.

Acknowledgements

This dissertation originates in 2007, when a small newspaper article on domestic violence in Curaçao's sister Island Bonaire triggered the interest of me and my colleagues of Curaçao's medical and public health services policy unit. For that reason, I want to start my acknowledgements with a big thanks (masha danki!) to my supervisor and colleagues Marion Schroen, Jeanine Constansia-KooK and Julissa Ignacio-Kosster. They have supported me with their collective brain power during the development of the 'domestic violence in Curaçao' research line. Since we were very understaffed then, I'm also very grateful for my lovely interns Elske Linden (2007), Lianne Rückert (2008), Mariëlle Gerritsen (2009) and Tomasz Krzewina (2010) who have each contributed to a phase in the project. Elske went with me through the process of finding out if there were any useful registrations available on the subject (as it turned out, there weren't much, at the time), Lianne and I developed the questionnaire and executed a pilot survey, Mariëlle coordinated the fieldwork for the main survey and Tomasz worked with me on unveiling the relationship between domestic violence victimization and health. I give a special thanks to Christopher Parker, for editing the 'Dunglish' out of my writing style (any mistakes still left are my own). For the smooth fieldwork period, high response rates and excellent data quality, I thank our interviewers Henk Leue, Cesario Rafaela, Natasja de Jezus and Maria Clementina. And, above all, the 816 wonderful Curaçaoans who were willing to share their experiences with us. Without their generous sharing of very private matters, we would still know nothing.

I would like to express my enormous gratitude to Professor Jeanne de Bruijn, who has guided me every step of the way in writing this dissertation. I am very grateful for your support and encouragement, and that you were willing to share your time, ideas, knowledge and experience with me. A special thanks to Professor Edith de Leeuw; her dissertation inspired me to explore the effects of data gathering modes and stirred my interest in the meaning of missing data patterns. I'm pleased and honored to have had the opportunity to collaborate with her on the mixed mode chapter.

Last but not least, the two people that made sure I never got lonely in the solitary process of writing. Love and light of my life, Chiel and Riyo, thank you for being there, and for being the wonderful people that you are. I'm blessed to share my life with you.

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1. Introduction

The first scientific article that mentioned domestic violence[1] is 'Sheriff Tries Crime Prevention', published in 1931 by the American Institute of Criminal Law and Criminology (Cress, 1931). It says: "*Through a study of homicide cases, the sheriff noted many domestic quarrels are started by relatives of young women who had been 'betrayed' by lovers. A program of family counseling was started through which the sheriff was able to help families discuss their problems and avoid violence.*"

Domestic violence became a topic of interest in the social sciences in the 1960's, when the women's movement put the problem of wives being beaten by their husbands on the agenda. With the rise of the men's movement in the 1990s, the issue of domestic violence against men has also gained attention. The number of publications on the subject has grown explosively since then (see Figure 1.1).

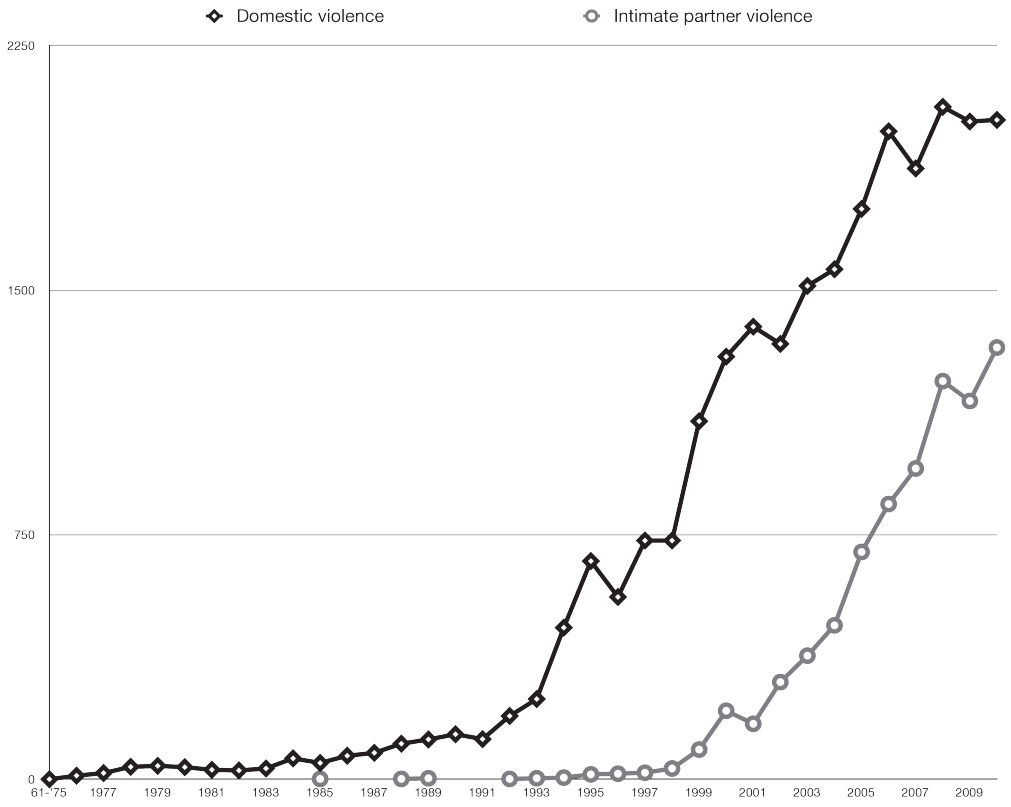

Figure 1.1: Number of published articles per year on domestic violence and IPV (source: WorldCat.org)

[1]Source: Worldcat, search term: 'domestic violence'

Definitions and types of domestic violence

A universally accepted definition of domestic violence, also known as domestic abuse or family violence does not exist. It is not limited to spousal abuse or intimate partner violence (IPV): both terms 'domestic' and 'violence' can be described by limited or broad definitions. 'Domestic' may include intimate partners, family and/or friends. 'Violence' may be defined by the intention to cause harm, or by whether the victim judges the action to be violent, or by whether society (or the legal system) finds the action to be violent (McVie et al., 2003). A broad definition of domestic violence is: 'a pattern of abusive behaviors by one or both partners in an intimate relationship such as marriage, dating, family, friends or cohabitation (Shipway, 2004)'. Domestic violence against adults can be divided into three main categories: psychological, physical and sexual violence (World Health Organization, 2002):

» Psychological abuse – such as intimidation, constant belittling and humiliating Various controlling behaviors – such as isolating a person from their family and friends, monitoring their movements, and restricting their access to information or assistance.

» Acts of physical aggression – such as slapping, hitting, kicking and beating.

» Forced intercourse and other forms of sexual coercion."

For violence against dependent family members, like children and the elderly, neglect is also a form of abuse (Keatsdale, 2003).

Other relevant aspects of domestic violence are initiation, intention and motivation: Johnson (2005) distinguishes 'situational couple violence', also known as 'common couple violence' from 'intimate terrorism'. Common couple violence is expressive and characterized by minor forms of violence. It often arises out of frustration, for example, the partner is pushed or slapped to get their attention. Intimate terrorism on the other hand is instrumental, to control, subdue, and reproduce subordination. Compared to common couple violence, it is more rare and serious, tends to escalate over time, and peaks after separation (Johnson, 2008).

In this dissertation we use the above described subtypes distinction of the World Health Organization.

The Site Curaçao

Curaçao is located in the southwestern Caribbean, just 70 km (44 miles) north off the coast of Venezuela and has a population of 140.000. Another 140.000 Curaçaoans live in the Netherlands. From 1954 until 2010, it was part of the Netherlands Antilles (NA). Until 1986, the NA was a country made up of 6 Caribbean islands within the Kingdom of the Netherlands until 1986, at which time Aruba seceded as a separate country within the Kingdom. In 2010, the remaining five islands dissolved the Netherlands Antilles. Curaçao has been an autonomous country within the Kingdom of the Netherlands since then.

The island's population comes from many ethnic backgrounds. There is an Afro-Caribbean majority of mixed African and European descent, and sizeable minorities of Dutch, Latin American, Jewish, Asian, Portuguese and Arabian inhabitants. There are also many recent immigrants from neighboring countries like the Dominican Republic, Haiti, Jamaica and Colombia. The majority (85%) of the Curaçao population is Roman Catholic.

Compared to most other Caribbean islands, Curaçao is less susceptible to natural disasters; it's located outside the hurricane belt. For its size, the island has a considerably diverse economy which does not rely mostly on tourism alone as is the case on many other Caribbean islands. International financial services, the harbor and trade are important economic sectors as well.

The prevalence of domestic violence in Curaçao has never been studied before. To get oriented into the subject, we look into the Caribbean state of affairs concerning data on domestic violence.

Domestic violence in the Caribbean

Figures on domestic violence in the Caribbean are at best sparse and fragmented, but information on some related subjects may give an indication of what to expect in terms of prevalence. In this paragraph, the following themes are addressed:

- The use of violence in general
- Specific research on domestic violence
- The relationship between gender empowerment and domestic violence
- The influence of family structures and living in a small, insular community on domestic violence

Violence in general

The use of violence in general may give an indication on the level of domestic violence prevalence to be expected in the Caribbean, given the use of interpersonal violence in a broader sense, like murders, assaults and rapes. A high degree of violence could indicate cultural norms that support and encourage the use of it. Cultural acceptance of violence, either as a normal method of resolving conflict or as a usual part of rearing a child, is a risk factor for all types of interpersonal violence (Krug et al., 2002).
There are indications that the Caribbean may be a relatively violent region. For example, murder rates in the Caribbean are higher than for any other region of the world (see Figure 1.2)[1].

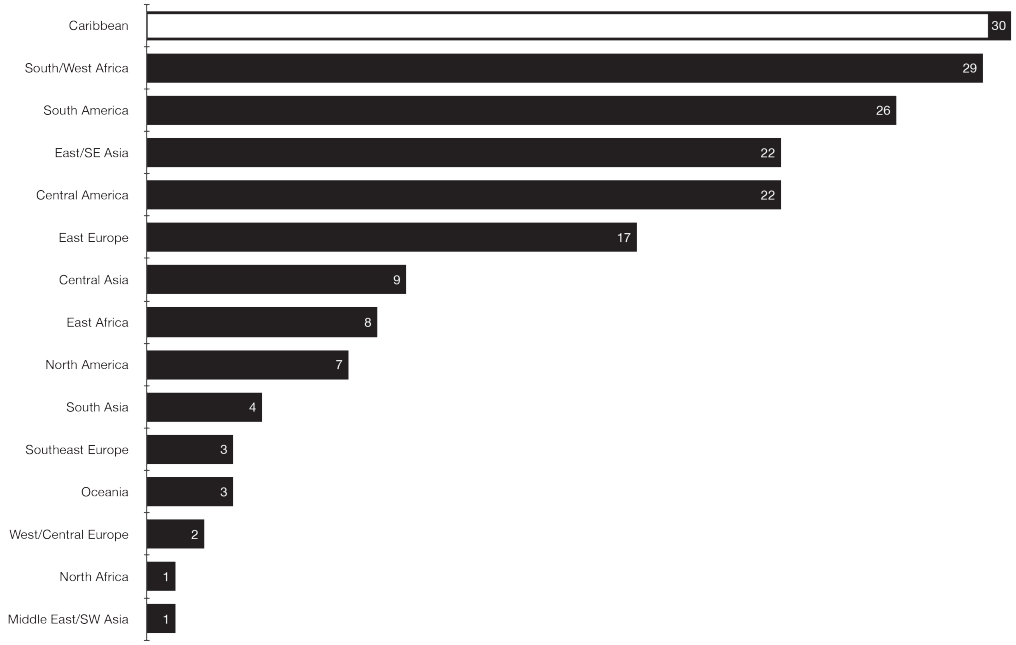

Figure 1.2: World murder rates per 100,000 population (source: UN Crime Trends Survey and Interpol, 2002 or most recent year).

Caribbean assault and rape rates (based on police reports), are also above the world average (United Nations Office on Drugs and Crime & World Bank, 2007). According to police statistics, all countries in the Caribbean for which comparable data are available, have a rape rate above the worldwide average of 15 rapes per 100,000 population[2] (United Nations Office on Drugs and Crime, 2002).

[1]Because most murders come to the attention of the police, contrary to crimes like robbery and domestic violence, murder rates are generally considered the most reliable indicator of the violent crime situation in a country.

[2]The available rates for Caribbean countries are: Bahamas 133, St Vincent and the Grenadines 112, Jamaica 51, St Kitts and Nevis 45, Dominica 34, Barbados 25, Trinidad and Tobago 18

Research on domestic violence in the Caribbean

There have been some efforts to identify domestic violence prevalence rates in the Caribbean (WHO 2002, 2006) but unfortunately, only domestic violence against women and children has been studied. Virtually nothing is known about Caribbean domestic violence against men, or its consequences. The few studies that have addressed domestic violence in the Caribbean suggest that domestic violence does affect a significant percentage of women and girls in the region (Barrow, 2001, WHO 2006).

Domestic violence victimization rates for women in Latin America and the Caribbean lie mostly between 20-30 percent for physical violence: statistics on physical domestic violence are available for Trinidad 19% (Nagassar, 2010), Dominican Republic 22% (Caceres, 2004) British Virgin Islands 29% (Haniff, 1998), Barbados, Antigua & Barbuda, 30% (Heise et al., 1994).

Very little is known about emotional abuse, except for estimates in Trinidad and the Dominican Republic of 53% and 67% of women respectively (Nagassar, 2010, Caceres, 2004). Rates for sexual domestic violence (i.e. sexual violence perpetrated by a partner, friend, acquaintance or family member) are not available. Studies on sexual intimate partner violence found rates between 10-15 percent in Colombia and Brazil (Heise et al., 1994, WHO, 2006).

Physical domestic violence against children is highly prevalent in the Caribbean. Moccia & UNICEF (2009) found that over 80% of 2-14 year old children experienced violent forms of discipline (including verbal aggression), and physical punishment was reported to be used on more than half of all 2-14 year old children, with prevalences ranging from 52% (Trinidad and Tobago) to 73% (Jamaica). In Belize, as many as 80% of the school aged children involved in the study reported being unloved by their mother while they were growing up and in Jamaica, 97% of the 11-12 year olds interviewed reported verbal aggression from an adult at home (Global Movement for Children (GMfC), 2009).

Gender differences

Data on domestic violence against adult men in Latin America and the Caribbean are not available, but a few studies on violence against children provide information on victimization rates for both boys and girls. According to UNICEF (2006), there are no significant gender differences in physical abuse rates of children, but there is some anecdotal evidence that boys are more likely to be victims of more severe forms of abuse (e.g., hospitals in Jamaica reported treating more boys than girls for physical abuse). The Worldbank (2003) reports only a minor difference in the percentage of boys and girls reporting sexual abuse (9.1% versus 10.5%), while in another study (UNICEF, 2006) , sexual abuse of boys was most common at younger ages (age 5-9) than that of girls. Halcon et al., (2003) found that 48% of adolescent girls' and 32% of adolescent boys' sexual initiation was "forced" or "somewhat forced" in nine Caribbean countries.

Researching gender differences in adult domestic violence victimization rates in Asia, Africa, Europe and North America, Archer (2006)[1] has demonstrated a significant relationship between nation characteristics like gender empowerment, individualism and sexist attitudes, and gender differences in domestic violence victimization. Unfortunately, Caribbean nations were not included.

It is not easy to make assumptions on gender differences in domestic violence prevalence in the Caribbean. Different angles and different results compete for primacy. The presence of sexism and machismo (Inter-American Development Bank & Gupta, 2003) are associated with larger victimization rates for women. But indicators for high gender empowerment – associated with gender symmetry in domestic violence victimization - are present, too. Many authors have described the 'marginalization of men' in the Caribbean. Boys are doing worse than girls at almost every age in school (Plummer, 2007), and women in Caribbean societies, whether

single mothers or not, are doing well and have become more autonomous, mentally stable and emotionally stronger over the last few decades (United Nations Economic Commission for Latin America and the Caribbean, Caribbean Development and Co-operation Committee, 1997).

One may wonder whether the marginalization of men could moderate the positive association between high gender empowerment and gender symmetry in domestic violence victimization. Bannon and Corriea (2006) describe how the increasing numbers of women with jobs and higher levels of education in Latin American and Caribbean countries, combined with the neglect and marginalization of men and boys, may bring about an increase in violence and unsafe sexual practices among men and between men and women. Henry-Lee (2000) summarizes in the same line: *"intimate partner violence has to be understood in relation to gender identities and relationships, and the struggles of status-deprived males who are trying to contend with the exigencies and limits of inner-city conditions. Whenever there is evidence of gender inequality and male marginalization, the health of women is likely to be negatively affected."* Based on these scholars, a feasible hypothesis on gender differences is difficult to make.

The influence of family structure and living in a small community

Two other contrary factors in relation to domestic violence are the influence of the extended family, and of living in a small community. In contrast to the relatively isolated Western-style nuclear family, family structures in the Caribbean are often characterized by matrifocal, (grand) mother-dominated households with several generations living in the same house or in houses built close to each other on a compound, sharing resources and carer's duties (Seegobin, 2002, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2010). Is living in an extended family residence a protective factor or a risk factor?

A same question could be put on the factor 'small island community residence'. Living in a small island community may influence the prevalence of domestic violence in a number of ways. MacNeil et al. (2004) have studied domestic violence in the Western Scottish islands and found that the lack of privacy and the high level of family interdependence in small communities heightens the abused person's sense of shame about living in an abusive relationship, and makes seeking help more difficult. People were hesitant to seek help, reluctant to make their problems public knowledge: "*The social worker's car outside the house leads to speculation*". But the lack of privacy could also function as a constraint on the abuser, particularly if the extended family lives nearby (MacNeil at al, 2004).

The extended family, according to scholars, often plays contradictory roles in protection and risk; the presence of many relatives, in-laws and other extended family members has been studied both as a potential cause of intimate partner violence, and as a protective factor. Clark (2010) found mixed effects of residing with the in-laws in Jordan: a supportive family was protective against intimate partner violence (but not always an effective source of assistance), but harmful family interference was also significantly related to higher intimate partner violence rates.

Watson et al., (2005) have studied domestic violence in Ireland and identified an increased risk of abuse when a couple is less well integrated into a wider community. Respondents who had little contact with their extended family, were almost twice as likely to be victimized compared to

[1] in some countries (for example, Belize, Grenada and Guyana), sexual abuse is not recognized under the law if the victim is male (UNICEF, 2006)

people with more contact with their extended family. These findings suggest that integration into a close-knit community may play a role in preventing abuse; isolation from the support of family may make people more vulnerable.

MacNeil et al. (2004) investigated how the presence of the extended family may be a risk factor, next to the already mentioned protective effect. Sometimes the extended families are perceived by the abuser as interfering; this could trigger more abuse. In other cases, the extended family contributes to the continuation of intimate partner violence by supporting the abuser, and pressuring an abused woman to stay and keep quiet about the abuse. The church may play a non-protective role for the abused in these cases, too (Wurtzburg, 2003). Eswaran and Malhotra (2008) describe a U-shaped relationship between supportive extended family involvement and wife abuse in India, with the lowest abuse rates in situations where either the wife, or the husband has strong family support. Living with the husband's family may decrease the autonomy of the wives, resulting in less conflict and less violence against them. Conversely, if the couple lives with the wife's family or if the wife has a brother who is willing to confront her husband, her autonomy increases which is associated with a decrease in domestic violence victimization as well.

Conclusion

In summary, the available domestic violence literature offers few clues on the situation in the Caribbean. General violence indicators support the assumption of high prevalences, but how these may be affected by gender relations and family structures is unclear. Reliable statistical data on the prevalence, nature, and consequences of domestic violence are simply not available.

The United Nations Office on Drugs and Crime (UNODC) have identified regular, periodic and standardized victimization surveys that permit comparison of crime levels both across countries and over time as a main priority, to enable evidence based policymaking (UNODC, 2007). The Global Movement for Children (2009) also urges the improvement of data collection and information systems, in the context of a national research agenda and agreed international indicators, and with particular reference to vulnerable subgroups. This book aims to contribute to filling the knowledge gap.

The central question of this dissertation is: What are the prevalences, risk factors and consequences of domestic violence against men and women on Curaçao?

1

Measuring domestic violence

Survey types

Two different academic fields have long traditions in studying domestic violence. One is the field of family conflict studies; the other is the field of crime studies. Due to the variety in definitions and focus, family conflict studies and crime studies show intriguing differences in gender specific domestic violence victimization rates: family conflict studies tend to find gender symmetry in victimization rates, whilst crime studies demonstrate much higher victimization prevalences for women (Kimmel, 2002). Much of the difference between the two types of studies can be explained by the fact that gender symmetry tends to be found mostly for minor forms of violence. Minor forms of violence like pushing, throwing something, or holding someone too hard, have been elaborately studied in family conflict studies, while the focus in crime studies statistics lies mainly on more severe violence (Kimmel, 2002).

Other factors that contribute to the discrepancy in domestic violence rates are that family conflict studies include psychological violence, but only take into account violence between current partners. Crime surveys on the other hand, include violence by former partners and other acquaintances, but not psychological violence (except for stalking). Finally, crime surveys make use of large, nationally representative samples, whilst family conflict surveys typically are based on smaller-scale nationally representative household surveys (Straus, 2000, McKinney, 2010), and non-representative convenience samples of college students or dating couples.

Crime victimization studies typically focus on victimization prevalence and rarely include questions on perpetrating domestic violence. Family conflict studies are often used to gain insight into perpetrator prevalences and underlying mechanisms. In contrast to national crime victimization studies, family conflict studies include specific questions on perpetrating domestic violence. Van der Knaap et al., (2010) used a nationally representative Dutch study specifically designed to measure perpetrator prevalences.

In this survey, the strengths of crime victimization studies (a relatively large, random sample, including all types of domestic violence victim-perpetrator relationships) and family conflict studies (including victim and perpetrator questions on minor and severe forms of psychological, physical and sexual violence) are combined. This has been done on few occasions so far (for example Tjaden et al., 2000).

Specific methodological issues

Social science scholars in the Caribbean face different challenges in gathering data than social scientists in Western countries. For example, there is a less developed ‘reading culture’, amplified by higher illiteracy and semi-literacy rates. Illiteracy rates are around 1% in Western countries and range from around 4% (Bahamas and Netherlands Antilles) to around 39% (Haiti) in the Caribbean (United States Agency for International Development & Colin, 2010). This complicates the use of certain data gathering modes, like online or pen-and-paper self-administered questionnaires. Web-based surveys are not being used often in the Caribbean yet, since only a minority of the population has a PC and access to the internet.

Two often used data collection modes in the Caribbean are self-administered questionnaires (SAQ) and face-to-face interviews (FtF). Both modes have strengths and weaknesses: for self administered questionnaires the amount of effort needed to answer the questions is relatively high, which augments non-response bias. Face-to-face interviews reduce that effect, but on the other hand cause more risk to obtain socially desirable answers, affecting data quality (Moum, 1998).

Survey designers are increasingly using a combination of data collection modes to offset the weaknesses of a particular mode with the strengths of another (Dillman, 2000). Research on the subject as to what extent the mode in which questionnaires are administered influences factors like response bias and data quality has, so far, been mainly focused on respondents in Western countries like the USA and Western Europe, especially since the explosive growth of web based surveys in recent decades (Roster et al., 2004). No scientific data are available on the effects of mixed mode designs in Curaçao, but to accommodate for the literacy and internet penetration issues mentioned above, a combination of SAQ and FtF is likely to yield the best results in terms of response rates and question understanding.

Outline of this book

Chapter 1, gender differences in victim-perpetrator relationships and severity of domestic violence in Curaçao, describes general domestic violence victimization prevalences of adults and children on Curaçao, as well as the nature, severity and victim-perpetrator relationships.

Chapter 2, risk factors for domestic violence in Curaçao, identifies the most vulnerable groups of adult domestic violence victimization.

Chapter 3, antecedents of perpetrating domestic violence in Curaçao, describes the prevalence of domestic violence perpetration and factors that increase the probability of perpetrating domestic violence.

Chapter 4, associations between domestic violence victimization and long term health in Curaçao, examines the relationship between domestic violence victimization and health care need and use.

Chapter 5, the effectiveness of a tailored mixed mode approach for surveying sensitive topics in the Caribbean, reflects on the mixed mode design used in this study and how the data administration modes affect data quality.

Annex 1: Technical Report - questionnaire development and operationalization, describes the development of the questionnaire, the data preparation process and reliability statistics.

Annex 2: Technical Report - data collecting, describes the fieldwork method, response rates, and sample characteristics.

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2. Gender differences in victim-perpetrator relationships and severity of domestic violence in Curaçao

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Abstract

Domestic violence against women on Curaçao is for the most part (ex-) partner violence. Against men, it is primarily violence from parents, family and friends. Parents are the main perpetrators of domestic violence against children, except for sexual violence, which is primarily perpetrated by family members and friends. The majority of the Curaçao victims of physical domestic violence have experienced more severe forms of abuse, like being hit with objects.
Keywords: severity, domestic violence, intimate partner violence, Caribbean, victim-perpetrator relationship

Introduction

A universally accepted definition of domestic violence, also known as domestic abuse or family violence does not exist. It is not limited to spousal abuse or intimate partner violence (IPV): 'domestic' may include intimate partners, but also family and/or friends. 'Violence' may be defined by the intention to cause harm or injury, or by whether the victim finds the action to be violent, or by whether society (or the legal system) judges the action to be violent (McVie et al., 2003). A commonly used, broad definition of domestic violence is: 'a pattern of abusive behaviors by one or both partners in an intimate relationship such as marriage, dating, family, friends or cohabitation (Shipway, 2004)'.

Two different academic fields have long traditions in studying domestic violence. One is the field of family conflict studies; the other is the field of crime studies. Due to the variety in definitions and focus, family conflict studies and crime studies show intriguing differences in gender specific domestic violence victimization rates: family conflict studies tend to find gender symmetry, whilst crime studies demonstrate much higher victimization prevalences for women (Kimmel, 2002). Much of the difference between the two types of studies can be explained by the fact that gender symmetry tends to be found mostly for minor forms of violence. Minor forms of violence like pushing, throwing something, or holding someone too hard, have been elaborately studied in family conflict studies, while the focus in crime studies statistics lies mainly on more severe violence (Kimmel, 2002).

Other factors that contribute to the discrepancy in domestic violence rates are, that family conflict studies do include psychological violence, but only take into account violence between current partners. Crime surveys on the other hand, include violence by former partners and other acquaintances, but not psychological violence (except for stalking). Finally, crime surveys make use of large, nationally representative samples, whilst family conflict surveys typically are based on smaller-scale nationally representative household surveys (Straus, 2000, McKinney, 2010), and non representative convenience samples of college students or dating couples.

Both types of studies have been conducted for the most part in Western countries; the available literature on the nature and severity of domestic violence offer few clues on the situation in the Caribbean. There is some data on domestic violence in developing countries (WHO 2002, 2006), but the focus in these reports is almost exclusively on violence against women and children. This paper aims to describe and analyze gender differences in domestic violence victimization on Curaçao, by examining the nature and severity of the violence, and victim-perpetrator relationships.

Prevalences

Domestic violence victimization rates for women in Latin America and the Caribbean lie mostly between 20-30 percent for physical violence, and between 10-15 percent for sexual violence (Heise et al., 1994, WHO 2006). Data on domestic violence against men in Latin America and the Caribbean are not available, but data from Western studies show that the prevalence of physical domestic violence victimization in the US and the UK is over twice as high for women compared to men (7-10% of men, 21-22% of women) but equal in Ireland (13%) (Tjaden et al., 2000, Kershaw, 2001, Watson, 2005). However, when minor physical violence is left out, the prevalence is 9% for Irish women and 4% for Irish men. The prevalence of sexual domestic violence victimization is less than 2% for men in these three countries, but 8% for women in the US and Ireland, and 17% for British women.

Nature and severity of domestic violence

Domestic violence against adults can be divided into three main categories: psychological, physical and sexual violence (World Health organization, 2002). For violence against dependent family members, like children and the elderly, neglect is also a form of abuse (Keatsdale, 2003).

Specifically for intimate partner violence (IPV) another distinction can be made: Johnson (2005) distinguishes between 'situational couple violence', also known as 'common couple violence' from 'intimate terrorism'. Common couple violence is expressive, characterized by minor forms of violence and – at least in most Western countries - perpetrated by and against both sexes equally. It often arises out of frustration, for example, the partner is pushed or slapped to get their attention. Intimate terrorism on the other hand is instrumental, to control, subdue, and reproduce subordination. Compared to common couple violence, it is more rare and serious, tends to escalate over time and is typically perpetrated by men.

Two often used instruments to measure the nature and severity of domestic violence are the Revised Conflict Tactics Scale (CTS2, Straus & Douglas, 2004) for intimate partner violence, and the Parent-Child Conflict Tactics Scales (CTSPC, Straus & Mattingly, 2007) for measuring violence against children. Straus uses two methods to score the severity of physical violence in the CTS2, based on the injury producing potential: a weighting method with higher weights for more severe forms of violence, and the dichotomous 'minor assault only' vs. 'severe assault (with or without minor assault)'.

The severity of domestic violence against children is very difficult to classify. Even defining the distinction between disciplining children and perpetrating violence against them is complicated, because in most societies the use of a certain amount of violence is considered a normal part of raising children. For example, Straus and Field (2003) used a very broad definition of psychological aggression and found it to be a near universal disciplinary tactic among American parents: 90% have used some form of psychological aggression (like shouting or threatening with physical violence) against their children by age two. Likewise, a broad definition of physical assault including a slap on the hand leads to an estimate of 77% of American parents to have used physical aggression against their children. But when adults were asked whether an adult caregiver had physically assaulted them in childhood during the National Violence Against

Women Survey (2000), lower prevalences were established: 53% of male respondents and 40% of female respondents indicated to have experienced one or more types of assault by an adult caregiver in childhood (specific examples of physical assault from the conflict tactics scale were used (CTS2, Straus & Douglas, 2004). Studies executed in the Caribbean (Moccia & UNICEF, 2009) show that over 80% of 2-14 year old children experienced violent forms of discipline, and physical punishment was reported to be done to more than half of all 2-14 year old children, with prevalences ranging from 52% (Trinidad and Tobago) to 73% (Jamaica).

Gender differences in victim-perpetrator relationships and severity of victimization

Because most literature on domestic violence focuses on intimate partner violence (IPV), information about domestic violence by friends, family and acquaintances is scarce. In the US National Violence Against Women Survey (NVAWS; Tjaden et al., 2000), the strengths of crime victimization studies (a large, nationally representative sample, including all types of victim-perpetrator relationships) and family conflict studies (including minor and severe forms of physical and sexual violence) are combined.

Findings from the NVAWS demonstrate that more men (45%) than women (31%) have been physically assaulted as adults, but violence against men is mainly perpetrated by strangers (25%) and acquaintances (13%); only 7% of men are physically assaulted by an (ex-) partner. In contrast, violence against women is mostly partner violence: 22% of women indicated the perpetrator to be an (ex-) partner and about 7% of women have been assaulted by a stranger or acquaintance. Violence by relatives is rare; 2-3% of men and women have been assaulted by a relative.

Intimate partner violence rates are thus higher for women, and this gender difference becomes larger as the seriousness of the assault increases: women are two to three times more likely than men to experience minor IPV, but seven to fourteen times more likely to experience severe IPV. Data on the severity of IPV against men and women are also available from the Irish National Study of Domestic Abuse (Watson et al., 2005). This study shows gender symmetry in minor IPV-rates, but women are two to three times as likely to experience severe physical or psychological IPV, and eight times as likely to experience severe sexual IPV. To summarize; studies in Western countries indicate that men are as least as likely as women to be physically assaulted, but much less likely to experience (severe) intimate partner violence.

Method

This section contains a summary of the methodology used. For a full description of the methodology, see ‘Technical Report 1: Questionnaire Development and Operationalization’ and ‘Technical Report 2: Data Collecting’ (van Wijk, 2011a, van Wijk, 2011b).

Sample and Fieldwork

Waiting area intercept surveying was used as sampling technique. The fieldwork took place during two months in 2009, in four public waiting rooms on Curaçao: the governmental registry office, the biggest local health insurance company, a governmental food handling permit distribution unit, and a medical facility. These locations are visited by citizens and clients of all social strata and waiting times are, in general, at least an hour, which gives ample time to fill out the questionnaire. Low educated and elderly people were somewhat underrepresented, this was partially compensated for by carrying out additional fieldwork in social clubs for seniors.

Two researchers of the Public Health Research and Policy Unit trained a team of four interviewers for this fieldwork. The people in the waiting rooms were approached by one of these interviewers, with the request to participate in a local survey of the Medical and Public Health service. After completing the questionnaire, the respondent received a small gift. A total of 816 filled in questionnaires were collected (see Table 2.1).

Table 2.1: Gender, age and level of education of respondents

		count	*percentage*
Gender	Men	325	40
	Women	491	60
Age	18-29	220	27
	30-39	169	21
	40-49	168	21
	50-59	134	16
	60+	125	15
Education	no education/ primary education	84	11
	pre-vocational secondary education	292	37
	secondary vocational education	172	22
	Sen. gen. secondary education / pre-university education	86	11
	higher professional education / university	162	20
Total		816	100

All participants were offered the choice to fill in the questionnaire anonymously or have an interviewer read the questions and fill in the answers for them. This study uses a mixed-mode design in which each respondent personally decides with which way of participating in the study he or she feels most comfortable[1]. The response rate (the number of total surveys, divided by the number of qualified, targeted respondents approached by interviewers) was 91%.

Questionnaire

We developed a standardized questionnaire, based on scientific literature and similar questionnaires about domestic violence (Straus et al., 2004, Lünneman en Bruinsma, 2005; Van Dijk e.a., 1997; Bos en Van Zanden, 2004; Goderie en ter Woerds, 2005; GGD Amsterdam, 2008). The questionnaire was available in Papiamentu[2] and Dutch.

Experiences with domestic violence were subdivided in psychological, physical and sexual violence. A multi response structure was used to measure life course victim experience; for each of the items, the respondent could tick one or more answer categories: 'yes, as a child (<18)', 'yes, as an adult, over a year ago' and 'yes, as an adult, less than a year ago'.

To distinguish non-response from non-victims, a 4th category 'no, never' was added.

[1] the consistency across survey modes was high (van Wijk, N.Ph.L. et al., (2012)).

[2] the questionnaire was first developed in Dutch, and subsequently translated into Papiamento. The Papiamento version was checked extensively by native speakers

Table 2.2 shows the different categories and subcategories that were used. Cronbach's alphas are calculated separately for 'as a child' and 'as an adult', per category.

Table 2.2: Variables measuring experiences of domestic violence as a victim

Category	*Alpha (per category)*	*Subcategories*
Psychological	As a child, α=.74	Humiliate (2 items)
	As an adult, α=.62	Restrict contact with others (4 items)*
		Restrict freedom (4 items)*
Physical	As a child, α=.75	Threaten (2 items)
	As an adult, α=.84	Push, hold too hard, confine (3 items)
		Hit, kick, hit with objects, cut, burn (4 items)
Sexual	As a child, α=.85	Sexual threats, exhibitionism (3 items)
	As an adult, α=.83	Sexual assault, rape (3 items)

**n.a. for childhood experiences*

If any of the items within a category (see Table 2.2) was answered confirmatively, we asked the respondent to report who the perpetrators were, and how often the violence had happened. The following answer categories were used:

Who was/were the perpetrator(s)?
- My spouse/partner
- My ex-spouse/ex-partner
- My parent(s)
- My child(ren)
- Other family member within household
- Other family member outside household
- Friend of the family

How often did it happen?
- Once
- A couple of times
- More often than once a year, but less often than once a month
- More often than once a month, but not every day
- (almost) every day
- It varied

The question 'how often did it happen' was not applicable for psychological violence, because the questions were formulated in such a way that occasional events did not count. For example, an item in the subcategory 'humiliating' was formulated as *'someone ridiculed me on a regular basis'*.

To measure the severity of the violence experienced, we used two methods: the severity weighted scale method of Straus (2001) and the dichotomous score 'minor only'/'severe' from the Revised Conflict Tactics Scale (Straus et al., 2004). For both these methods, each form of physical or sexual violence gets a weight which reflects the injury producing potential. The following weights were used:

1. Psychological violence, all forms: 1

2. Weights for physical violence
   - » Threat, push, hold too hard, confine: 1
   - » Kick, hit: 2
   - » Hit with objects: 3
   - » Burn: 5
   - » Stab: 8

3. Weights for sexual violence
   - » Sexual threats, exhibitionism: 1
   - » Sexual assault: 3
   - » Rape: 8

For the severity weighted scale, a sum score of all weighted experiences is calculated. For the dichotomous scale, respondents who have experienced only minor forms of violence (weight 1) get a score of 1, and respondents who have experienced severe forms of violence (weight>1; with or without minor forms), get a score of 2.

Results

In this chapter, we examine gender differences in domestic violence victimization from several viewpoints. First, we examine the prevalence and nature of domestic violence against men and women. Next we investigate the relationship between victim and perpetrator, the severity and the frequency of the violence.

Prevalence

Table 2.3 demonstrates the victimization prevalence rates by gender and type of violence. Chi^2 tests were used to identify significant gender differences. Psychological and physical domestic violence against children affects as many boys as girls (see). Psychological and physical violence against adults affects more women than men, sexual violence affects predominantly women and girls.

Table 2.3: Victimization prevalence by gender and type of violence

		Psychological n= 766	Physical n=758	Sexual n=757	Any n=764
As a child, <18:	Men	13.0	19.0	2.0	25.2
	Women	13.8	19.0	***10.7	28.5
As an adult, past year:	Men	10.1	4.6	.7	11.7
	Women	*16.6	7.4	*2.5	*17.7
As an adult, ever:	Men	20.3	11.1	1.0	24.6
	Women	**31.7	***21.8	***8.9	***38.3
Ever, entire life:	Men	26.9	26.5	2.3	38.8
	Women	**38.5	*33.8	***16.4	**50.7

*Significant gender differences: *p<.05, **p<.01, ***p<.001*

Multiple domestic violence victimization

Victimization by more than one type of domestic violence has occurred by 19% of our respondents. Sexual violence seldom occurs without some other form of violence; almost three quarters of sexually abused children and almost 90% of sexually abused adults report to have experienced physical and/or psychological domestic violence as well.
Underage girls suffer more frequently than boys from sexual violence, commonly in combination with other types of violence, $\chi^2(1)=20.7$, $p<.001$. More adult women than adult men experience domestic violence of all types and combinations, especially sexual violence, $\chi^2(1)=21.2$, $p<.001$. Table 2.4 demonstrates a detailed overview of the victimization prevalences.

Table 2.4: Victimization prevalences by type of violence[1] (n=764)

		Only psychological	Only physical	Only sexual	Psychological, physical	Psychological, sexual	physical, sexual	Psychological, physical, sexual
Child	men	6	13	0	5	1	0	1
	women	7	10	3	3	2	3	3
Adult	men	13	5	0	4	0	0	1
	women	15	6	1	8	1	1	5
Ever	men	11	14	0	11	0	0	2
	women	14	11	3	9	2	2	11
Total ever		13	12	2	10	1	1	7

[1] The amount of valid answers varies slightly per type of violence (see Table 2.3). Because Table 2.4 is based on combinations of types of violence, the sum of prevalences per type in Table 2.4, may deviate somewhat from the total prevalence per type in Tables 2.3.

Relationship between victim and perpetrator

Not all respondents indicated who had committed the domestic violence against them: the percentage of victims that have skipped this question ranges from 20-25% for physical and sexual violence to 40% for psychological violence. Especially men were reluctant to answer the question on who perpetrated psychological violence against them: 52% of the male victims and 39% of the female victims of psychological violence have skipped this question, $\chi^2(1)=4.2$, $p<.05$.

Table 2.5 shows which perpetrators committed the different types of violence; figures for men and women are displayed separately where significant gender differences were found.

Table 2.5: Perpetrators according to victim by type of violence[1] (percentages)

		Parent(s)	*(ex)partner[2]*	*Family/friends*	*>1 perp*	*Total*	*n=*
child	Psychological	52	15	32	2	100	54
	Physical	70	9	17	4	100	97
	Sexual	12	10	76	2	100	41
adult	Psychological	38	39	16	7	100	116
	Physical - men	37	5	53	5	100	19
	Physical - women	21	61	18	0	100	67
	Sexual – women	10	59	31	0	100	29

Parents are the main perpetrators of violence against children, especially of physical violence and, to a lesser extent, of psychological violence. Family and friends are the second most indicated perpetrators of physical and psychological violence against children. Sexual violence against children is most often perpetrated by other family members and friends.

Psychological violence against adults is most often committed by parents and (ex-) partners. The victim-perpetrator relationship in physical violence is different for men compared to women ($\chi^2(3)=21.5$, $p<.001$, see Figure 2.1): the main perpetrators of domestic violence against men are family and friends, followed by parents. Physical violence against women is mostly committed by (ex-)partners, and sexual violence as well (see Table 2.4).

[1] The questionnaire was structured in such a way that the perpetrator(s) must be ticked after filling in the questions about each type of violence. Cases with experiences with a specific type of violence in both childhood and adulthood by multiple perpetrators are excluded from the victim-perpetrator relationship analysis to avoid interpretation problems (2-5% of cases, depending on type of violence).

[2] 'as a child' is defined as 'younger than 18'. Ex (partner) violence experienced as a child, refers to dating violence.

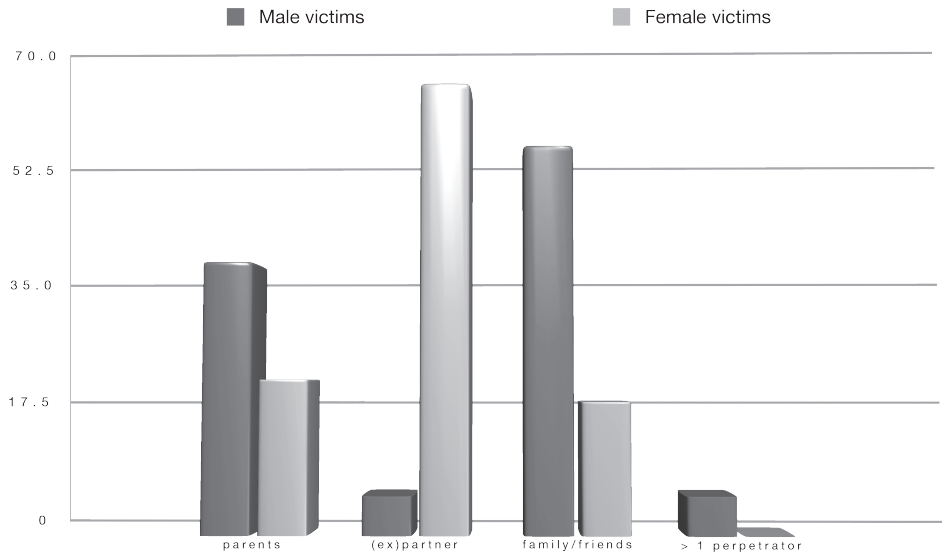

Figure 2.1: Percentages of perpetrators of physical violence against adults (n=86)

Nature and severity

Nature

Psychological violence against children was limited to the subcategory 'humiliating', because the other subcategories 'restricting contact with others' and 'restricting freedom' are not considered to be violent behavior towards children. Physical violence against children most often takes the form of hitting/kicking (9% of respondents) or hitting with objects (12%), there is no gender difference in the type of physical violence experienced by boys or girls.

Psychological violence against adults most often takes the form of restricting freedom (being watched all the time, not being allowed to open one's own mail, or not allowed to administer one's own finances), followed by humiliation (see Table 2.6). The gender difference is the largest for these types of psychological violence; experiences from the subcategory 'restricting contact' (not being allowed to go out, to use the phone, to make an appointment or to talk with others) are the least common and the prevalence is nearly equal for men and women.

Table 2.6: Adult victimization prevalence by gender and violence subcategory (n=755)

		Men	*Women*
Psychological	Restricting freedom	12	20**
	Humiliating	8	17***
	Restricting contact with others	5	8$^{p=.06}$
Physical	Threaten with physical violence	8	14**
	Hit, kick, hit with objects, cut, burn	7	14**
	Push, hold too hard, confine	2	12***

*Significant gender differences: *p<.05, **p<.01, ***p<.001*

Physical violence against adults consists most often of threatening with physical violence (13% of respondents) or hitting/kicking (9%). All subtypes of physical violence against adults occur to

more women than to men. Nevertheless the gender difference is the largest for minor forms of physical violence; pushing, holding too hard and confining rarely happen to men, but to 12% of women.

Sexual violence does not have a specific subtype[1] that happens more often than others; for each type of sexual violence in the questionnaire, 6-8 percent of female respondents indicated that it had happened to them at some point in their lives[2].

Severity

To measure the severity of physical and sexual violence victimization, the severity weighted scale and the dichotomous score 'minor only'/'severe' were used. For psychological violence, the severity index consisted of the total number of types of psychological violence experienced.

'Minor only' is reported by a minority of the respondents. Severe violence was perpetrated against 87% of those who were physically victimized in childhood and against 67% of those who were physically victimized as adults. Severe sexual violence was perpetrated against 72% of sexual violence victims in childhood and against 88% of adult victims.

Tests for significant gender differences in the severity of psychological and physical violence suffered, show that only the number of types of psychological violence suffered is higher for women (average 2.8) than for men (average 2.0), $Z=-2.1$, $p<.05$. The proportions for physical violence are similar for men and women (see Table 2.7, $Chi^2(1)=.5$, ns). This indicates that the severity of the physical violence suffered is more or less the same for male and female victims.

Table 2.7: Severity of physical violence against adults (percentages)

	Men		*Women*	
	% of respondents n=306	% of victims n=34	% of respondents n=449	% of victims n=98
Minor only	4	38	6	32
Severe	7	62	13	68
Total	11	100	22	100

But when we examine the different types of perpetrators separately, a gender difference in the severity of physical violence against adults emerges: physical (ex-) partner violence is more severe against women: the few male victims that have any experience with physical (ex-) partner violence reported only minor violence from their (ex-) partners, while 85% of the female IPV victims had suffered severe physical violence from an (ex-) partner, $Z=-2.2$, $p<.05$.

Frequency

The variable 'frequency' was not applicable for psychological violence because the questions were formulated in such a way that occasional events did not count. For example, an item in the subcategory 'humiliating' was formulated as *'someone ridiculed me on a regular basis'*.

[1] sexual threats, exhibitionism, sexual assault, rape

[2] For the analysis sexual violence against adults, only female respondents were used, because the number of adult male victims of sexual violence was too small (n=3).

Not all respondents filled in the frequency question; about 25% of the respondents for whom this question was applicable, skipped it. Most respondents reported low frequencies of violence; for each type of reported violence about two thirds of all victims experienced that type of violence once or a couple of times, approximately a quarter indicated a couple of times per year, and about ten percent of the victims stated the violence happened at least once a month. There is a gender difference; adult women experience physical domestic violence more often than men do: 25% of male victims and 42% of female victims were physically assaulted more often than a couple of times, $Z=-2.0$, $p<.05$ (see Figure 2.2).

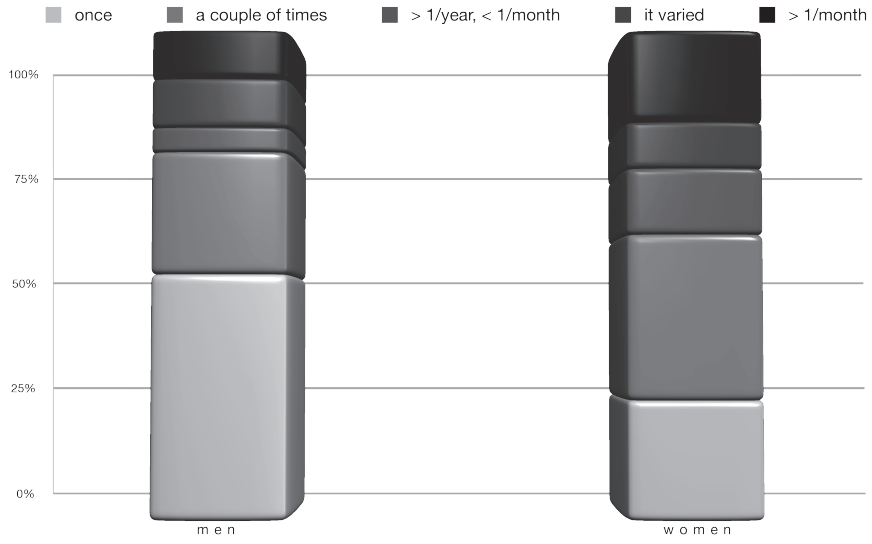

Figure 2.2: frequency of physical domestic violence against adults, by gender (n=94)

Also, being physically abused by (ex-)partners - which is much more common for women than it is for men, see Table 3.2 - is associated with a slightly higher frequency than being abused by parents or family/friends: $\chi^2(2)=5.0$, $p=.08$.

Discussion

Compared to other countries, Curaçao appears to have a more or less 'average' prevalence of domestic violence against adults. Physical violence against children seems to be somewhat less prevalent compared to other Caribbean countries, but memory effects may have biased our results since only adults participated in this study.

About half of all respondents in this study have experienced some form of domestic violence at some point in their lives. The majority of the Curaçao victims of physical domestic violence have experienced severe forms of abuse, like being hit with objects.

Parents are the main perpetrators of domestic violence against children (except for sexual violence, which is for the most part perpetrated by family members and friends). Remarkable is that our respondents report that even after reaching adulthood, parents are responsible for a large proportion of psychological violence, of humiliating and controlling of their children. The prevalence of parental perpetration of psychological violence against their adult children is similarly high as the prevalence of psychological violence between (ex-) partners.

This finding may be attributable to the fact that family structures in the Caribbean are often characterized by (grand)mother-dominated households and extended families with several

generations living in the same house, or in houses built close to each other on the same compound, sharing resources (Seegobin, 2002, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2010). Also, the island of Curaçao is small (444 km^2, 200 miles^2) so the extended family will always be close. Parents may easily stay involved in the lives of their adult children and grandchildren, even if the adult children move out of their parent's neighborhood.

Consistent with the literature on the subject, domestic violence against females is for the most part (ex-) partner violence. Men on the other hand rarely experience physical (ex-) partner violence; parents, family and friends are the most common perpetrators of violence against adult men. The most striking outcome is, that over a third of physically assaulted male adults report that the aggressor was a parent.

In many studies, women are found to be much more likely to experience repeat victimization and more severe, dangerous violence. This appears to be only partly the case in Curaçao; repeat victimization is more prevalent among adult women than among men, but gender differences with regard to severity are less obvious: the male victims in our survey reported violence of similar severity as the women did. This deviation from findings in other studies may be explained partly by a difference in definition: most studies focus on intimate partner violence (IPV) while in this study a broader definition of domestic violence was used. When in this study domestic violence perpetrated by family and friends is set aside, (ex-) partner violence is clearly not only much more prevalent, but also more severe against women, compared to men. Still, it is recommended to inquire in more detail about the context of the violence and about injuries suffered in future domestic violence research to get a clearer picture of the nature and severity of domestic violence in Curaçao.

An intriguing side phenomenon is the amount of missing data for the victim-perpetrator relationship questions. Apparently, respondents are more apprehensive towards identifying the perpetrator(s) than towards disclosing victim experiences. Taboos on indicating perpetrators differ per culture and country. It is recommended that further research on this sensitive subject not only examines context and severity of the violence in more detail, but victim-perpetrator relationships also.

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3. Risk factors for domestic violence in Curaçao

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Abstract

One out of three people (25% of men, 38% of women) in Curaçao have experienced some form of domestic violence at some point in their adult lives. The most significant risk factors for domestic violence in Curaçao are the female gender, a young age, low education and domestic violence victimization in childhood. Divorce, single parenthood and unemployment increase the risk for women, but not for men.

These findings are consistent with current literature on the subject. Further research on the context, nature and severity of domestic violence in the Caribbean is necessary. Studies should preferably combine the strengths of national crime surveys and family conflict studies: nationally representative samples (including men and women), and questionnaires that include all possible experiences of psychological, physical and sexual assaults by current and former partners, family and friends.

Keywords: risk factors, domestic violence, intimate partner violence, Caribbean

Introduction

Much of what is known about domestic violence prevalence and risk factors stems from research carried out in Western countries, in particular the USA (Barnish, 2004). There is some literature on domestic violence in developing countries (WHO 2002, 2006), but the focus in these reports is almost exclusively on domestic violence against women and children. Differences in victimization rates and risk factors between sexes in developing countries are still largely unknown, but may differ dramatically from those in western nations. Archer (2006) researched cross-cultural differences in physical aggression between partners and found figures on domestic violence in developed nations did not generalize to all other countries: nation characteristics like gender empowerment, individualism and sexist attitudes are strongly correlated with gender differences in victimization. It is difficult to typify the Caribbean, or more specifically in Curaçao, in this respect, and to make assumptions on gender differences in domestic violence victimization rates. Indicators for high gender empowerment are present in Curaçao's matrifocal culture (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2010): female employment rates are similar to those of males (CBS AN, 2009), and women are more highly educated than men, especially in the younger generations (van Wijk and Gerstenbluth, 2004). High gender empowerment is associated with gender symmetry in domestic violence victimization. On the other hand, the presence of sexism and machismo (Marscha & Verweel, 2005) are associated with larger victimization rates for women (Archer, 2006).

Domestic violence is not limited to violence between intimate partners (IPV), but includes violence between other household and family members, and friends. In contrast to the relatively isolated Western-style nuclear family, family structures in the Caribbean are often characterized by (grand)mother-dominated households with several generations living in the same house or in houses built close to each other, sharing resources (Seegobin, 2002, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2010). The presence of many relatives, in-laws and other extended family members has been studied as both a potential cause of intimate partner violence, as well as a protective factor (Eswaran and Malhotra, 2008, Clark, 2010); both mechanisms may take effect in the Curaçao population.

In summary, the available literature on domestic violence prevalences, risk factors and gender differences offer few clues on the situation in the Caribbean. This paper aims to contribute to filling this knowledge gap.

Gender and Domestic Violence

A large proportion of the literature on risk factors for domestic violence focuses on female victims. Important sources of information on the prevalence of (domestic) violence against men and women are crime victimization studies, for example Tjaden et al., 2000, Kershaw, 2001, Watson, 2005. These studies use large nationally representative samples and include physical and sexual assaults by current and former partners. Crime victimization studies typically find a dramatic gender asymmetry in rates of domestic violence, prevalences for women being over five times as high as for men. Women are also more likely to experience more repeat victimization and more severe, dangerous violence, like being beaten up, choked, strangled, suffocated, threatened/ assaulted with a weapon, or sexually assaulted, as well as more death, injury, and hospitalization (Johnson & Bunge 2001, Tjaden & Thoennes 2000a, Saunders 2002, Gadd et al., 2002, Richards 2003, Walby & Allen 2004).

Another source of data on domestic violence against men and women stems from family conflict studies, like smaller-scale nationally representative household surveys (Straus, 2000, McKinney, 2010), and non-representative convenience samples of college students or dating couples. Family conflict studies tend to find much more gender symmetry than crime victimization studies. Apart from the sampling techniques, crime victimization studies differ from family conflict studies on the following aspects: family conflict studies include psychological violence (crime surveys do not, except for stalking), but only deal with conflicts with a current partner (crime surveys include assaults by ex-partners). Furthermore, the measurement of physical violence victimization in crime studies is often limited to more severe forms of violence, whereas family conflict studies take account of all possible experiences of physical violence, including those that do not result in injury and are not thought to be a crime.

Why do family conflict studies find gender symmetry in domestic violence, while crime victimization studies find an overwhelming majority of male perpetrators and female victims? Most importantly, family conflict studies include minor forms of physical violence and psychological domestic violence, while crime victimization studies tend to focus on more severe forms of physical violence. Second, the family conflict studies do not take into account the context of the violence, so fighting in self defense (which is unlikely to show up in crime victimization studies statistics) is also counted as an act of violence.

An important distinction in this context is the difference between ‘situational couple violence’, also known as ‘common couple violence’, and ‘intimate terrorism’ (Johnson, 2005). Common couple violence is expressive and characterized by minor forms of violence. It often arises out of frustration, for example, the partner is pushed or slapped to get their attention. Gender symmetry tends to be found at this lower end of violence (Kimmel, 2002). Intimate terrorism on the other hand is instrumental, to control, subdue, and reproduce subordination. Compared to common couple violence, it is more rare and serious, it escalates over time and is typically perpetrated by men (Johnson, 2008).

Prevalences

Domestic violence victimization rates for women in Latin America and the Caribbean lie mostly between 20-30 percent for physical violence, and between 10-15 percent for sexual violence (Heise et al., 1994, WHO 2006). Data on domestic violence against men in Latin America and the Caribbean are not available[1], but data from Western studies show that the prevalence of physical domestic violence victimization in the US and the UK is over twice as high for women compared to men (7-10% of men, 21-22% of women) but equal in Ireland (13%) (Tjaden et al., 2000, Kershaw, 2001, Watson, 2005). However, when minor physical violence is left out, the prevalence is 9% for Irish women and 4% for Irish men. The prevalence of sexual domestic violence victimization is less than 2% for men in these three countries, but 8% for women in the US and Ireland, and 17% for British women.

Risk factors

Little is known on risk factors for becoming a victim of domestic violence in the Caribbean. The WHO (2006) have investigated the influence of age, partnership status and education on prevalence figures for women in developing countries, but in a vast amount of mainly Western literature, various other factors have been identified that appear to increase the risk of becoming or remaining a victim of domestic violence, or of experiencing more damaging consequences. The risk factors on which most consensus exists are: the female gender, domestic violence victimization in childhood, a young age, having children or being pregnant, separation from partner, low socioeconomic status, and drug or alcohol use. These factors will be discussed in more detail in the following paragraphs. There is little or no evidence that the personalities or behavior of women contribute to their own victimization; any dysfunctional behavior appears to be the consequence of abuse rather than the cause (Barnish, 2004).

Childhood victimization

Abuse in childhood or during adolescence increases the likelihood of adult intimate partner violence victimization for men and women Gomez (2011). Several reviews have indicated that women who are victims of domestic violence are more likely to have been abused as children, even with demographic differences taken into account (Riggs, 2000, Schumacher et al., 2001). Coid (2000) found that the risk of domestic violence victimization was four times higher for women who were severely beaten in childhood and up to six times higher for women who were sexually abused in childhood. Ehrensaft et al., (2003) found that the risk of injury producing partner assaults was almost five times as high for people who had been physically abused in childhood. Siegel & Williams (2001) also found that women who had been sexually abused as minors, had an increased risk of IPV victimization as adults.

Age

Richardson et al., (2002) found abuse rates to be significantly lower among women over 45, compared to younger women. Although youth is identified as a risk factor for domestic violence victimization in many community surveys (for example Mirrlees-Black 1999, Walby & Allen 2004), these associations may be, partly, attributable to the fact that younger women are more likely

[1] Two recent Caribbean crime victimization studies, The Jamaican National Crime Victimization Survey (2006) and the 2008 Victim Survey in Bonaire, Curacao and Sint Maarten, did not include domestic violence

to associate with younger men who are generally more violent (Walby & Allen 2004), or because younger women are more willing to disclose violence (Bunge & Locke 2000). Schumacher et al., (2001) conclude after reviewing both large and small scale studies that correlations between age and domestic violence victimization are weak or inconsistent. The WHO study on intimate partner violence against women in 15 developing countries (2005) identified younger women, especially those aged 15 to 19 years, to be at higher risk of physical or sexual violence in most countries.

Having children

Women with children appear to be more vulnerable to continued abuse. They are less likely to leave and more likely to return to violent relationships, due to reluctance to break up the home and family life, and because many mothers are not financially independent (WHO 2002, Anderson 2003, Allen 2004). Richardson et al., (2002) found that having children significantly increases the risk of ever experiencing physical violence for women. But the relationship between incidence of domestic violence and having children may be partly attributable to the fact that younger women are more likely to experience partner assaults and also to be raising children (Walby & Myhill 2001).

Socio-Economic Status

According to the WHO (2002), women living in poverty are disproportionately affected by partner violence. Financial stresses in the relationship may increase the risk of domestic violence, and it may be harder to leave violent relationships for women without sufficient economic and educational resources (Campbell 2002, Allen 2004). A higher education is associated with less violence in many settings, and there is also some evidence that having a job outside the home is an enabling factor to leave an abusive relationship, providing economic independence as well as a stable source of social support (WHO 2002)..

Separation

Violence often starts, or increases, when a couple is separating. Walby & Myhill (2001) did a review of UK literature and concluded that separation is a high risk factor for domestic violence. Johnson et al., (2008) found that situational couple violence doubles after separation, but intimate terrorism victimization increases from less than one percent of current couples, to five percent of ex-husbands and over twenty percent of ex-wives. Half of all stalking cases involve ex-partners (Melton 2000, Douglas & Dutton 2001, Tjaden & Thoennes 2001). The risk of domestic violence homicide is also strongly associated with separation. In the WHO study (2002), it was found women who had been separated or divorced reported much more partner violence during their lifetime than currently married women. An important nuance to these figures is that victims of intimate terrorism in their current relationship tend to refuse to participate in this type of survey research, so intimate terrorism victimization may be more severely underestimated in current couples, than in separated couples (Johnson et al., 2008).

Alcohol and Drugs

Substance-dependent people may remain longer in violent relationships because drug and alcohol use blurs people's judgments and perceptions. This may contribute to self-blaming and delay in recognizing abuse as a problem (Burke et al., 2001, Leonard 2001). Foran (2008) concludes from a meta-analytical review of alcohol and intimate partner violence that there is a small to moderate effect size for the association between alcohol use or abuse and intimate partner violence. There is also some evidence that women who are problem drinkers are more likely to choose a heavy drinking partner, which increases their risk of abuse (Leonard, 2001).

Method

This section contains a summary of the methodology used. For a full description of the methodology, see 'Technical Report 1: Questionnaire Development and Operationalization' and 'Technical Report 2: Data Collecting' (van Wijk 2009a, van Wijk 2009b).

Sample and Fieldwork

Waiting area intercept surveying was used as sampling technique. The fieldwork took place during two months in 2009, in four public waiting rooms in Curaçao: the governmental registry office, the largest local health insurance company, a governmental food handling permit distribution unit, and a medical facility. These locations are visited by citizens and clients of all social strata and waiting times are, in general, at least an hour, which gives ample time to fill out the questionnaire. Low educated and elderly people were somewhat underrepresented, this was partially compensated for by carrying out additional fieldwork in social clubs for seniors.

Two researchers of the Public Health Research and Policy Unit trained a team of four interviewers for this fieldwork. The people in the waiting rooms were approached by one of these interviewers, with the request to participate in a local survey of the Medical and Public Health service. After completing the questionnaire, the respondent received a small gift. A total of 816 completed questionnaires were collected (see Table 3.1).

Table 3.1: Gender, age and level of education of respondents

		count	*percentage*
Gender	Men	325	40
	Women	491	60
Age	18-29	220	27
	30-39	169	21
	40-49	168	21
	50-59	134	16
	60+	125	15
Education	no education/ primary education	84	11
	pre-vocational secondary education	292	37
	secondary vocational education	172	22
	Sen. gen. secondary education / pre-university education	86	11
	higher professional education / university	162	20
Total		816	100

All participants were offered the choice to fill in the questionnaire anonymously or have an interviewer read the questions and fill in the answers for them. This study uses a mixed-mode design[1], in which each respondent personally decides with which way of participating in the study he or she feels most comfortable. The response rate (the number of total surveys, divided by the number of qualified, targeted respondents approached by interviewers) was 91%.

Questionnaire

We developed a standardized questionnaire, based on scientific literature and similar questionnaires about domestic violence (Straus et al., 2004, Lünneman en Bruinsma, 2005; Van Dijk e.a., 1997; Bos en Van Zanden, 2004; Goderie en ter Woerds, 2005; GGD Amsterdam, 2008). The questionnaire was available in Papiamentu[2] and Dutch.

Experiences with domestic violence were subdivided in psychological, physical and sexual violence. A multi-response structure was used to measure life course victim experience; for each of the items, the respondent could tick one or more answer categories: 'yes, as a child (<18)', 'yes, as an adult, over a year ago' and 'yes, as an adult, less than a year ago'. To distinguish non-response from non-victims, a 4th category 'no, never' was added. Table 3.2 shows the different categories and subcategories that were used. Cronbach's alphas are calculated separately for 'as a child' and 'as an adult', per category.

Table 3.2: Variables measuring experiences of domestic violence as a victim

Category	*Alpha (per category)*	*Subcategories*
Psychological	As a child, α=.74	Humiliate (2 items)
	As an adult, α=.62	Restrict contact with others (4 items)*
		Restrict freedom (4 items)*
Physical	As a child, α=.75	Threaten (2 items)
	As an adult, α=.84	Push, hold too hard, confine (3 items)
		Hit, kick, hit with objects, cut, burn (4 items)
Sexual	As a child, α=.85	Sexual threats, exhibitionism (3 items)
	As an adult, α=.83	Sexual assault, rape (3 items)

**n.a. for childhood experiences*

To measure the severity of the violence experienced, we used two methods: the severity weighted scale method of Straus & Gelles (1990) and the dichotomous score 'minor only'/'severe' from the Revised Conflict Tactics Scale (Straus et al., 2004). For both these methods, each form of violence gets a weight which reflects the injury producing potential.

[1] the consistency across survey modes was high (Wijk, N.Ph.L. et al., 2012).

[2] the questionnaire was first developed in Dutch, and subsequently translated into Papiamento. The Papiamento version was checked extensively by native speakers

Logistic regression analyses were carried out to identify significant relationships between risk factors and victim prevalence. Additionally, CHAID ('CHi-squared Automatic Interaction Detector', part of SPSS Answer Tree) was used to identify subgroups with the largest proportion of victims. CHAID is a multivariate exploratory technique and a non-parametric alternative to the hierarchical regression approach; it has no restrictions regarding the measurement level or the frequency distribution of the variables.

In the first step, CHAID examines each pair of predictor categories for significance with respect to the dependent variable in the total sample. Bonferroni adjusted Chi-square tests determine which categories are merged; categories merge when their relationship with the dependent variable is similar. Finally, the most significant predictor is selected for segmenting the sample. In the next step, CHAID moves down the tree, splitting on the best predictor, and analyses each subgroup in turn. This process is continued until there is no significant predictor ($p>0.05$), or the specified stopping rules are fulfilled (e.g. minimum number of cases in a subgroup=25) (Herschbach, 2004).

In this section we examine the relationship between risk factors and victim prevalence from three points of view, starting with descriptive prevalence figures by the supposed risk groups. Next, we use a logistic regression analysis to identify the relationship between the risk factors as a set and victim prevalences, and finally we use a CHAID analysis to identify the most vulnerable subgroups.
All known risk factors that were present in our questionnaire (gender, age, education, presence of children, single parenthood, divorce, childhood domestic violence victimization, drinking frequency, typical number of drinks, working status and type of health insurance (proxy for SES) were tested for significant relationships with experiencing domestic violence as an adult.

Table 3.3 shows the risk factors that have a significant relationship with experiencing domestic violence as an adult. All types of domestic violence experiences in childhood are associated with a large increase in all types of domestic violence experiences as an adult. Other risk factors are the female gender, a young age, divorce and having children.

Table 3.3: percentage of adult victims, by risk factors (n=816)

		Psychological	*Physical*	*Sexual*	*any*
gender	Male	20	11	1	25
	Female	32**	22***	9***	38***
age	18-30	33***	19*	5	41***
	31-49	30***	21*	8	35***
	50+	18	12	5	22
education	≤ pre-vocational	29	20*	6	35**
	sr.2ND vocational / pre-university	27	17	5	34**
	≥ higher professional education	20	12	5	23
civil state	never married	31	24	6	28
	married/cohabiting	25	11	5	27
	divorced	31	30***	6	42*
	widow(er)	21	24	13	23
children in household	None	24	15	6	30
	1-2	27	17	4	33
	>2	32	25*	9	39*
single parent	No	24	16	6	32
	Yes	32	39**	9	53**
victim as a child,	No	22	15	4	28
psychological	Yes	55***	34***	13***	61***
victim as a child,	No	21	14	4	27
physical	Yes	41***	29***	10**	52***
victim as a child,	No	22	15	4	28
sexual	Yes	64***	46***	31***	76***
Total		27	17	6	33

*Groups with significant higher prevalence: *p<.05, **p<.01, ***p<.001 – Chi²-tests*

Some of the risk factors in Table 3.3 are correlated; for example, 46% of the respondents that were victims of sexual violence in childhood have experienced other forms of physical violence in their youth as well, compared to 16% of respondents who have not been sexually abused as children, $\chi^2(1)=53.2$, $p<.001$.

To examine the relationship between our set of predictors and the dependent variables, we used a logistic regression analysis. The results of this analysis are displayed in Table 3.4.

For the analysis of the dependent variable 'sexual violence' only female respondents were used, because the number of male adult victims was too small (n=3).

Table 3.4: significant B-weights in logistic regression analysis (n=325 men, 491 women)

	any		*psychological*		*physical*		*sexual*
	men	women	men	women	men	women	women
$\chi^2(9)=$	44.8***	70.9***	34.7***	54.3***	20.1*	46.8***	28.3**
age	-.03**	-.02**	-.03**	-.02*	-.03*		
education	-.2*	-.2*		-.2*			
divorced						.8*	
single parent		.8*				.9*	
victim as child, psych.	1.4**	.9**	1.5**	1.0**			
victim as child, physical		.6*				.8*	
victim as child, sexual		1.5***		1.3**		.9*	2.0***

**p<.05, **p<.01, ***p<.001*

The most salient part of Table 3.4 is that for women, the risk of becoming a victim of domestic violence as an adult seems to be influenced by a complex mixture of factors, while for men only a young age, low education and/or psychological violence victimization in childhood are related to adult experiences with domestic violence.

For both men and women, a higher education is associated with a small prevalence decrease for all types of violence (see Table 3.2); when all types are combined the relationship is significant[1] (see Table 3.4). A young age is also associated with a higher prevalence for both sexes (see Table 3.4). The relationship between age, gender and education and the prevalence of any type of domestic violence is presented in Figure 3.1. Especially for young women, a higher education seems to be a protective factor for domestic violence.

[1] For women, the relationship between level of education and psychological violence prevalence is also significant (see Table 3.2)

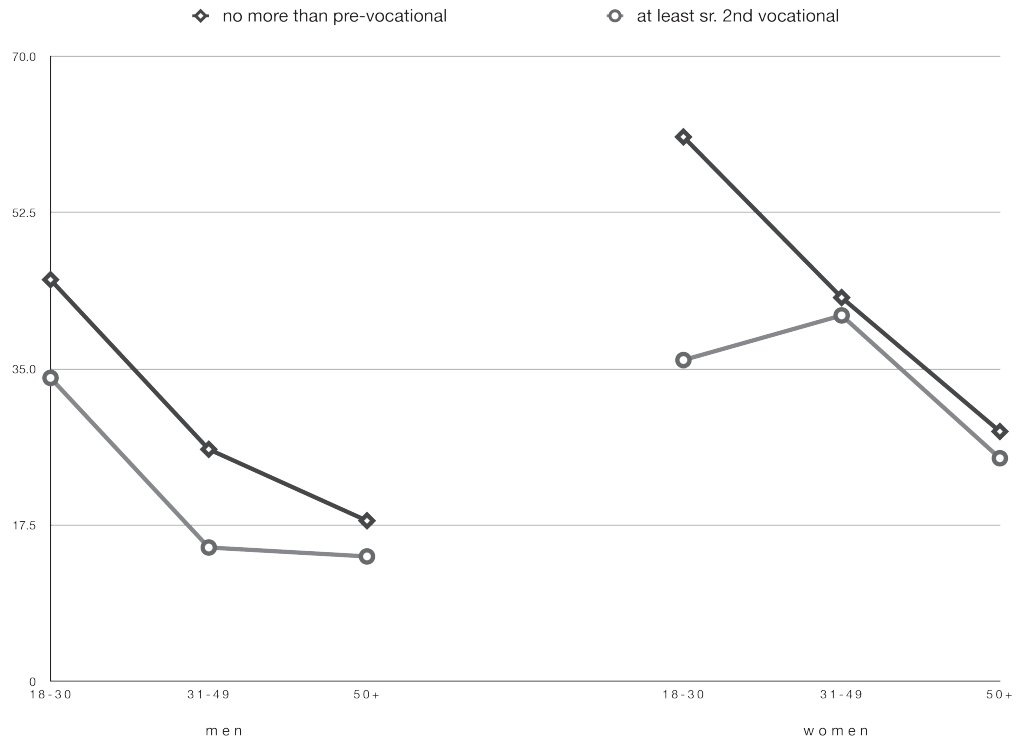

Figure 3.1: prevalence of domestic violence victimization of adults by age, gender and education (n=325 men, 491 women)

To identify the most important determinants of adult experiences with domestic violence and identify vulnerable subgroups, a CHAID analysis was undertaken for each type of violence. Because childhood experiences appear to be so strongly correlated with adult experiences (see Table 3.1 and Table 3.2), childhood experiences are likely to be the most significant determinant. More subtle determinants may become invisible in CHAID trees when these are heavily influenced by childhood experiences in the first nodes. Therefore, the determinants of adult experiences when childhood domestic violence victimization is left out, are also reported here.

Psychological violence

Figure 3.2 shows that childhood experiences with domestic violence are the most important determinants for adult experiences with psychological domestic violence. The risk for psychological violence victimization as an adult is almost three times as high for women who have experienced sexual violence in childhood (68%), compared to those who have not (25%).

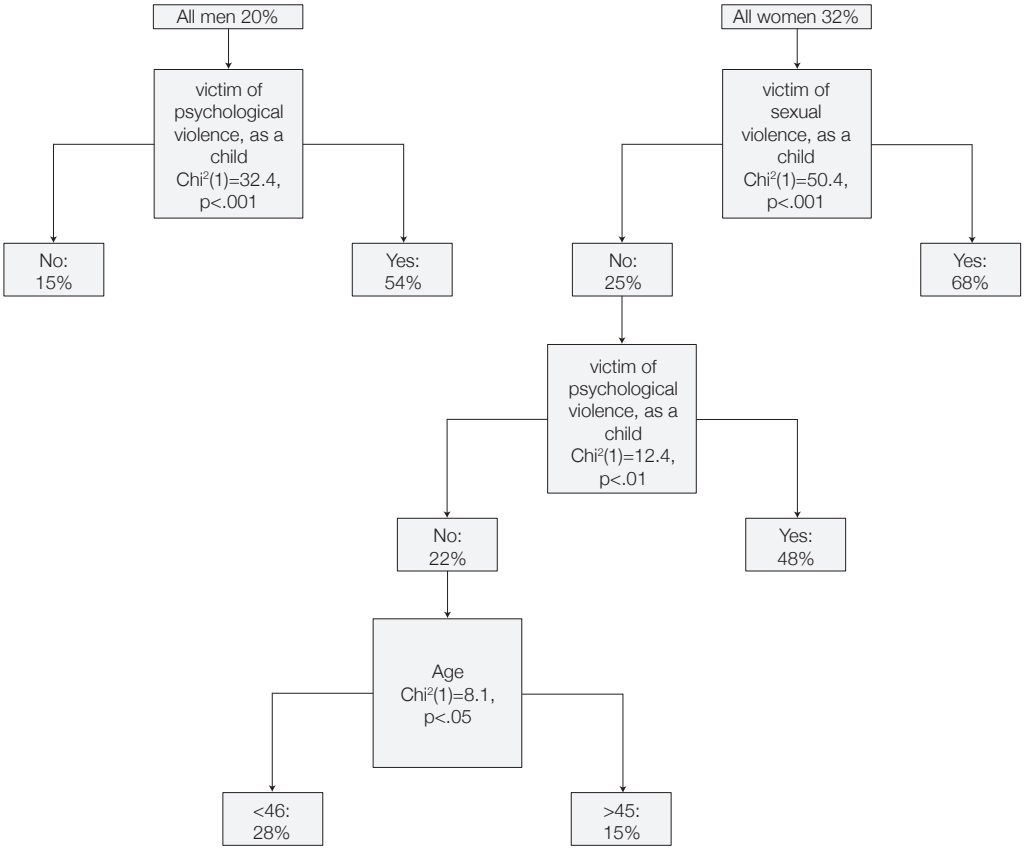

Figure 3.2 percentage victims of psychological violence, as an adult (n=325 men, 491 women)

For women who have not experienced sexual violence in childhood, experiences with psychological violence as a child double the risk of psychological violence victimization as an adult. For men, childhood experiences with psychological violence are the most important determinant for becoming a victim of psychological violence as an adult; the risk becomes almost five times as high.

For women without childhood experiences with sexual or psychological domestic violence, age is the most important determinant for adult experiences with psychological violence; the prevalence for women aged 18-45 is almost twice as high compared to older women. The elderly generation may indeed have fewer experiences with psychological violence, or bias may be caused by memory effects[1].

[1] The literature on the subject shows that younger women are more vulnerable, so memory effects could by present for elderly women. The prevalence of recent experiences with violence (during the past year) has also been measured, but these percentages are too low to find significant age effects.

Excluding childhood experiences

For men, no other significant determinant (apart from the previously discussed childhood experiences) has been found.
For women, age is the most important determinant if childhood experiences are left out: the percentage of victims is over three times as high for women aged 18-65, compared to women older than 65: 34% vs. 10%, $Chi^2(1)=11.2$, $p<.01$. For the 18-65 age category, women with a steady job have a lower risk than not working, or occasionally working women: 31% vs. 42%, $Chi^2(1)=5.1$, $p<.05$.

Conclusion

The regression analysis and the CHAID both identify childhood experiences with domestic violence as the most important determinants for adult experiences with psychological domestic violence, followed by age. The CHAID also identifies women aged 18-65 without a steady job as vulnerable group.

Physical violence

The most important determinants of domestic violence victimization as an adult for men are: a young age, or habitually drinking over four drinks at a time (see Figure 3.3).

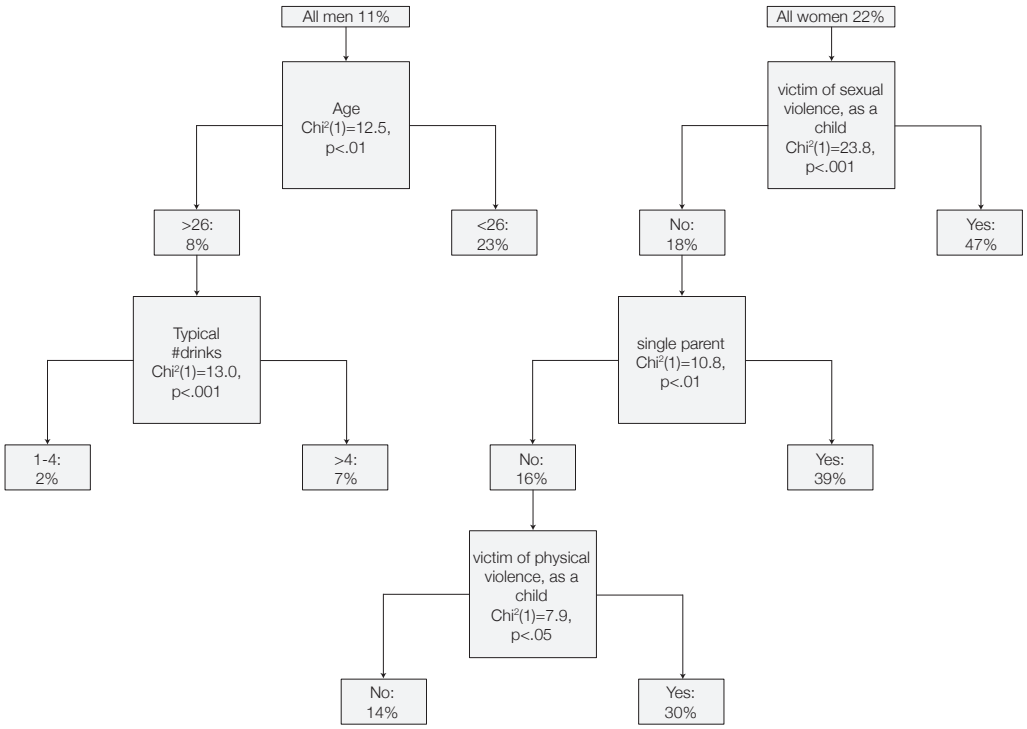

Figure 3.3: Percentage victims of physical violence, as an adult (n=325 men, 491 women)

For women, experiences with sexual violence as a child are the most important predictor of adult physical domestic violence victimization. For women who have not experienced sexual violence in childhood, single parenthood is the most important predictor: single mothers have almost three times as much risk of physical domestic violence victimization. For women who are not single mothers and are not sexually abused in childhood, physical domestic violence victimization in childhood doubles the risk of becoming a victim of physical domestic violence as an adult.

Excluding childhood experiences

For men, childhood experiences are no determinant of adult experiences with physical domestic violence, so leaving out childhood experiences does not change the results of the analysis.

If childhood experiences are left out, divorce is the most important determinant for female victims of physical domestic violence over a year ago: 11% of married/cohabiting women, 21% of single (never married) women and widows, and 36% of divorced women were physically abused more than 12 months before participating in the survey[1].

For single women, the risk of physical violence victimization increases with the number of children in the household, $Chi^2(3)=8.5$, $p<.05$, Kendall's $\tau=.15$, $p=.05$ ($n=152$), see Figure 3.4.

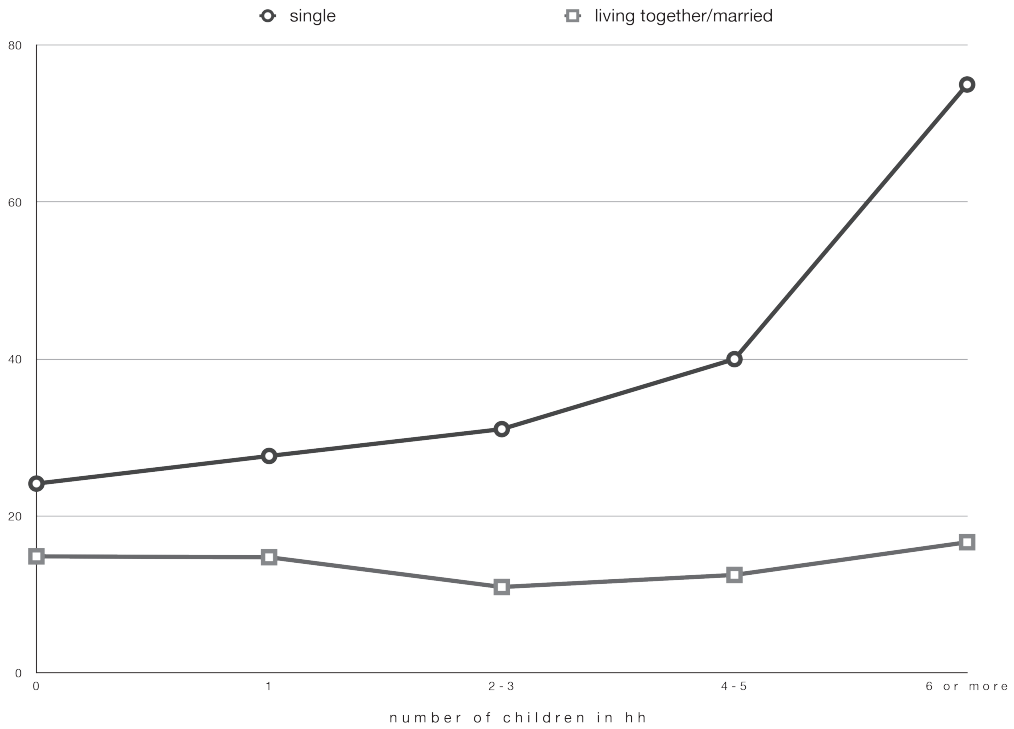

Figure 3.4: Prevalence of female physical domestic violence victimization, by nr. of children in the household and marital status (n=491)

[1] The total prevalences for physical DV victimization, including the past year, are: 14% of married/cohabiting women, 24% of widows, 28% of single women, and 38% of divorced women

Conclusion

For women, the regression analysis and the CHAID both identify childhood experiences with domestic violence, and divorce as the most important determinants for adult physical domestic violence victimization. Other risk factors are single parenthood (regression analysis), especially when the number of children increases (CHAID).

A young age is the most important risk factor for men. The CHAID also identified heavy drinking older men as a subgroup with increased risk subgroup for physical domestic violence.

Sexual violence (women)

Sexual domestic violence victimization in childhood is the most important predictor of sexual domestic violence victimization later in life: the risk for childhood victims is almost six times higher than for non-victims.

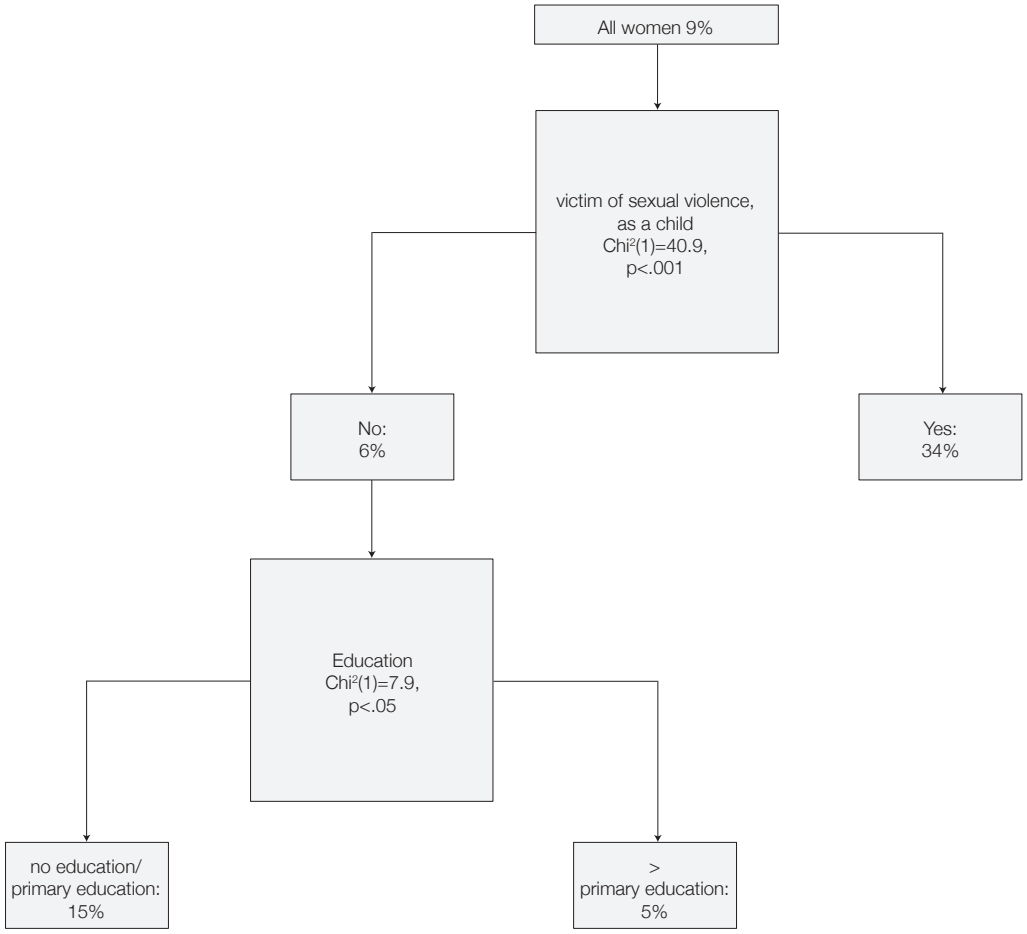

Figure 3.5: Percentage female victims of sexual violence, as an adult (n=491)

Women who have no experiences with sexual domestic violence as a child, are most vulnerable if they are low educated: the percentage of female victims is three times as high for women who have no more than primary education, compared to women with at least secondary education.

Excluding childhood experiences

If childhood experiences are left out, a low education remains the most important predictor for experiencing sexual domestic violence as an adult with a similar ratio: 20% of women who have no more than primary education and 8% of women with at least secondary education are adult victims, $Chi^2(1)=8.1$, $p<.05$.

Conclusion

Sexual violence in childhood is the most important determinant for adult sexual domestic violence victimization. The CHAID also identified low educated women as vulnerable group.

Discussion

One out of three people (25% of men, 38% of women) in Curaçao have experienced some form of domestic violence at some point in their adult lives. The female victimization rates are similar to the prevalences found by Heise et al., (1994) and the WHO (2006) in Latin America and the Caribbean: female victimization rates lie mostly between 20 and 30 percent for physical violence (22% in Curaçao) and around 10-15 percent for sexual violence (9% in Curaçao).

Compared to adult men, adult women are 1.6 times as likely to experience psychological violence, two times as likely to experience physical violence and nine times as likely to experience sexual violence. This gender asymmetry is consistent with findings in the US (NVAWS, 1998) and the UK (BCS, 2001).

Men

For men, a young age, a low education and psychological abuse in childhood is associated with a higher risk of adult domestic violence victimization. Especially the prevalence of adult psychological violence victimization increases sharply for men who were psychologically abused as children: the percentage of adult men that have been put down or ridiculed on a regular basis by someone in their inner social circle, is over three times as high for men who have experienced this in childhood as well, compared to men who have not. Further research is necessary to determine the nature of this association, especially regarding the source of the abuse. Does the way parents treat their boys continue when they become men, or do psychologically abused men have a stronger tendency to end up with psychologically abusive women?
Physical domestic violence victimization is reported by one out of ten men. Higher prevalences are associated with a young age and with more than average drinking habits.

Women

Women have three risk factors in common with men: a young age, a low education level and psychological domestic violence victimization in childhood. But for women, the risk of becoming an adult victim increases with any type of domestic violence victimization in childhood. Psychological or physical abuse as a child is associated with higher prevalences of psychological and physical abuse in adulthood respectively, but the most damaging childhood experience in

terms of risk increase is sexual violence victimization. Sexual violence victimization in childhood is associated with a higher prevalence of all types of domestic violence in adulthood; the prevalence of psychological and physical violence is 2.5 times as high for women who have been sexually abused as girls, and the prevalence of sexual violence is over five times as high, compared to women who have not been abused.

Consistent with current literature, we found a much higher prevalence of physical domestic violence victimization for divorced women and for women who are single parents, especially if there are many children in the household[1]. For single women, the prevalence increases with the number of children in the household from 23% to 62%.

The total female victimization rates range from 14% of married/cohabiting women, 24% of widows, 28% of single (never married) women, and 38% of divorced women. But intimate partner violence may be more severely underestimated in current couples than in separated couples, because domestic violence victims that are still in a relationship with their abuser are less likely to communicate their experiences in this type of survey than separated victims are (Johnson et al., 2008).

A steady job seems to offer some protection against psychological violence: 31% of women with a steady job and 42% of not working, or occasionally working women report being psychologically abused as adults.

Conclusions

The most important risk factors for domestic violence in Curaçao are being female, a young age, low education and domestic violence victimization in childhood. Divorce, single parenthood and unemployment increase the risk for women, but not for men.

These findings are consistent with current literature on the subject. It is evident that the mechanisms that increase vulnerability are not identical for men and women. This could be partly attributable to the fact that domestic violence is different in context, nature and severity, depending on gender. A deeper analysis of these aspects of domestic violence in the Caribbean is imperative.

An important limitation of the current study is the lack of information on the context of domestic violence victimization. Data on violence initiation, intention and motivation have not been collected; so prevalences and gender differences regarding 'common couple violence' versus 'intimate terrorism' cannot be determined yet. Furthermore, domestic violence in the form of stalking is not studied explicitly, although some types of psychological violence that overlap with stalking were included in the questionnaires, like 'being watched all the time'. It is recommended to investigate the prevalence of this type of domestic violence in Curaçao as well; living in a small, insular community may facilitate stalking.

To obtain a realistic and nuanced interpretation of all characteristics of domestic violence, inferences on the subject should preferably be made considering findings from both national crime surveys and family conflict studies, or with study designs that combine the strengths of both types of research: nationally representative samples (including men and women), and questionnaires that include all possible experiences of psychological, physical and sexual assaults by current and former partners, family and friends.

[1] The number of children in the household was asked in the questionnaire, not the number of children of the respondent

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4. Antecedents to the Perpetration of Domestic Violence in Curaçao

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Abstract

Previous international studies have identified low gender empowerment and high collectivism as factors that contribute to higher domestic violence perpetration prevalence for males than for females. Little is known about gender differences in domestic violence perpetration prevalence in collectivist countries with high gender empowerment. Is there gender symmetry in perpetrating domestic violence in such countries? In Curaçao, a collectivist country with high gender empowerment, men and women have similar rates of committing domestic violence, resembling Western countries. Self reports reveal that 25%-33% have committed psychological domestic violence, 11%-17% physical violence and 1%-6% sexual violence.

Antecedents to the perpetration of domestic violence are similar for both sexes, too. Being a victim of domestic violence increases the probability of becoming a perpetrator, especially in cases of severe physical violence victimization. Other perpetrator risk factors are a high education for perpetrating psychological violence, and having children in the household for perpetrating physical violence.

Keywords: perpetrators, domestic violence, intimate partner violence, Caribbean, self-report

Introduction

Gender and the prevalence of perpetrating domestic violence

A broad definition of domestic violence is: 'a pattern of abusive behaviors by one or both partners in an intimate relationship such as marriage, dating, family, friends or cohabitation (Shipway, 2004)'. Domestic violence includes, but is not limited to, intimate partner violence (IPV), and can be divided into three main categories: psychological, physical and sexual violence (World Health Organization & Krug, 2002). Data on domestic violence is usually gathered by two types of studies: national crime surveys and family conflict studies.

Sizable studies with large nationally representative samples on the prevalence of domestic violence and other violent crimes (Inter-university Consortium for Political and Social Research, 1996, Römkens, 1992) typically focus on victimization prevalence and rarely include questions on perpetrating domestic violence. There are exceptions, for example, a nationally representative Dutch study specifically designed to measure perpetrator prevalence (van der Knaap et al., 2010). Recent examples of crime victimization studies are Tjaden et al., 2000, Kershaw, 2001, Watson, 2005. Data from such studies usually show a higher prevalence of IPV victimization for women than for men, Curaçao being no exception (van Wijk & de Bruijn, 2011).

The higher victimization rates for women may lead to the impression that men are more likely to be perpetrators of domestic violence than women. But this is not necessarily the case. First of all, the use of victimization figures to estimate perpetration prevalence is generally not recommended because self-reports on perpetrating violence tend to paint a different picture than partner reports on exposure; reports of partners result in higher prevalence rates than self-reports (Archer, 1999).

Furthermore, the use of sex specific victimization rates to estimate *gender differences* in perpetration rates (as opposed to general perpetration prevalence) may lead to underestimating female violence to a larger degree than male violence. The low victimization rates of adult males would result in low perpetrator prevalence estimates for females, while women may commit domestic violence nevertheless, for example, against children or other family members. Also, the higher female victimization rates should not be read as to imply higher male perpetrator rates: according to the victims, roughly only half of the perpetrators of domestic violence against adult women were (ex-)partners; the remaining part consisting of parents, other family members and friends (van Wijk & de Bruijn, 2011).

Another type of research, the family conflict studies, is often used to gain insight in perpetrator prevalence and the underlying mechanisms. In contrast to the first type of studies, the national crime victimization studies, family conflict studies include specific questions on perpetrating domestic violence. These studies are mostly done with smaller-scale nationally representative household surveys (Straus and Gelles, 1990, Brush, 1998, Moffit, 1999), and non-representative convenience samples of college students or dating couples. A limitation of family conflict surveys is that the focus is on aggression between current partners (intimate partner violence/IPV); other forms of domestic violence like violence against other family members, friends and ex-partners are not taken into account.

Family conflict studies find, in general, few sex differences on perpetrating IPV. Archer (2000) did a meta-analytic review on sex differences in aggression between heterosexual partners[1] and found also that gender differences were small; women were a little more likely to have used physical aggression, but men were more likely to have injured their partners. The annual prevalence on perpetrating violence against a spouse is around 12% for both sexes, and intimate partner violence takes place at some point in time in around 50% of all marriages. Van der Knaap et al. (2010) reported few sex differences, either; in their nationally representative Dutch sample, around a third of all respondents had at sometime committed some form of domestic violence: 28% committed psychological violence, 19% committed physical violence and 2% committed sexual violence.

Most family conflict studies in which gender similarity on perpetrating IPV was found, have been carried out in Western countries. Interestingly, Archer (2006) did a cross cultural study on sex differences in partner aggression. In his analysis, the Social Role Theory[2] (Eagly et al., 2000) is used to link gender differences in IPV measures, to women's power relative to that of men in different nations, and to other country characteristics like individualism/collectivism. Archer found that in collectivist, low gender empowerment nations, male-to-female aggression was more common than vice versa. Other factors that were found to contribute to higher male IPV perpetrating rates are sexist attitudes and a lack of social support for women.

[1] Studies were used from the USA (n=72), UK (n=4), Canada (n=3), Korea (n=1), Israel (n=1), and New Zealand (n=1)

[2] Gender differences in social behavior are assumed to stem from the division of labor into homemaker and worker outside the home. These roles lead to differentiation of 'masculine behavior' and 'feminine behavior', the former being associated with more use of direct aggression.

Should we expect gender similarity on perpetrating domestic violence in the Caribbean, or, more specific, in Curaçao? Figures on domestic violence in the Caribbean are at best sparse and fragmented. Some efforts have been made to estimate victimization rates of women and children, (WHO 2002, 2006) but virtually nothing is known about Caribbean domestic violence against men, or about perpetration rates. The presence of sexism and machismo (Marscha & Verweel, 2005) are associated with larger victimization rates for women (Archer, 2006), as is the collectivist culture (Valk, 2006). At the same time, indicators for high gender empowerment are present in Curaçao: female employment rates are similar to those of males (CBS AN, 2009), and women are more highly educated than men, especially in the younger generations (van Wijk & Gerstenbluth 2004). Another factor to take into consideration is Curaçaos matrifocal society (Shaw, 2003). The term matrifocal means 'having a mother as head of the family or household'; matrifocal societies are those in which women, especially mothers, occupy a central position. Many Curaçaoans dwell in (grand)mother-dominated households with several generations living in the same house or in houses built close to each other on a compound, sharing resources and carer's duties (Seegobin, 2002, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2010). It is not unusual that males are not living with the mother of their children. Living in a household with several generations of women may function as a support group and therefore be associated with gender similarity in perpetrating IPV (Archer, 2006).

Self-reported information on perpetrating domestic violence against children is rare, but the available data shows few sex differences, just like the self-reports on violence against an intimate partner. Van der Knaap et al. (2010) found that a third of the respondents committed some form of domestic violence at some point in their lives, of which 20% was directed towards children. Straus and Field (2003) used a very broad definition of psychological aggression and found it to be a near universal disciplinary tactic among American parents of both genders: 90% have used some form of psychological aggression (like shouting or threatening with physical violence) against their children by age 2, and severe psychological aggression (like name calling, threatening to kick out of the house) is perpetrated against toddlers by 10-20% of parents and against teenagers by about 50% of parents. Physical aggression by parents towards children is also widespread in the USA, reported by 77% of parents (Straus et al., 1998). UNICEF estimates the percentage of children that are victims of physical punishment to be between 70% and 90% in various Caribbean islands (Global Initiative to End All Corporal Punishment of Children, 2008).

Risk factors

Some risk factors that have been studied as potential factors that contribute to the probability of becoming a perpetrator of domestic violence are; childhood experiences with domestic violence – either as a victim or as a witness, age, marital/relationship status, alcohol consumption, stress, socio-economic status, race and religion (Breiding, 2008, Gil-Gonzalez, 2008, Linder, 2006, McKinney, 2009, Moffitt, 1999, Fergusson 2008, Roberts, 2011, Sommer, 1994, Straus, 1989, Whitfield, 2003, Oriel, 1998).

Childhood experiences

Childhood experiences with domestic violence are the most consistent and most influential risk factors for becoming a victim as well as a perpetrator later in life[1]. There are many examples in literature, for example, McKinney (2009) and Whitfield (2003) found that the risk to engage in mutual intimate partner violence was two to four times higher for men and women who

[1] The validity of retrospective reports by adults of their own adverse experiences in childhood has often been criticized. Hardt & Rutter (2004) showed that although there is a substantial rate of false negatives, false positive reports are probably rare. Retrospective reports are valuable, but should be used with caution.

were exposed to childhood family violence, compared to people who were not. Roberts (2011) analyzed the data from over 30,000 US adults from the National Epidemiologic survey on alcohol and related conditions and found the prevalence of perpetrating intimate partner violence to be between 1.4 and 1.7 times as high for men and women who had been abused emotionally, physically or sexually as children, compared to those who had not been abused. Studies in New Zealand by Moffitt (1999) and Fergusson (2008) also identified harsh family discipline and exposure to abuse in childhood as risk factors for perpetrating domestic violence.

Age

Being young is a confirmed risk factor in most studies for both being a victim as well as a perpetrator of domestic violence (Barnish, 2004, van Wijk & de Bruijn, 2012, Moffitt, 1999, Fergusson, 2008). Egley (1991) suggests that the relationship between age and violence may be influenced by other factors associated with youth, such as low impulse control and heightened aggression, or with a young person's lack of experience and maturity.

Relationship status

In many studies (e.g. Stets & Straus, 1989, Johnson, 2008) the highest rates for domestic violence were found for dating couples and divorced people. Possible explanations are the younger average age for dating couples, and the fact that domestic violence rates spike when a couple goes through marital problems or counseling (Riggs, 2000) and during separation (Kropp, 2002). Another factor may be higher denial rates among couples who are still together.

Alcohol consumption

A significant and consistent correlation has been found between men's drinking levels and their violence towards their partners, including sexual violence (Hotaling & Sugarman 1986, Downs et al. 1996, Holtzworth-Munroe et al. 1997, Riggs, 2000, Leonard 2001, Schumacher et al. 2001, Jewkes 2002, Kropp 2002, WHO 2002, Bennett & Williams 2003, Finney 2004). But since being abused as a child is associated with both drinking problems later in life and with a higher prevalence of intimate partner violence (Schafer et al., 2004), a causal relationship between alcohol consumption and perpetrating domestic violence is difficult to unravel.

Stress

Roberts (2011) demonstrated that various stressors in the past 12 months increased the risk of perpetrating intimate partner violence, especially financial stressors and relationship stressors. Likewise, Seltzer and Kalmuss's (1988) analyzed Straus and Gelles' national survey data and found an additive effect of childhood experiences with family violence and recent stressful events, such as unemployment, mobility, marriage, birth of children, divorce, aging, and death: adults who had, as children, been exposed to domestic violence and experienced stressful events recently, were more likely to exhibit violence against their partners.

Based on the current literature, we expect to find higher domestic violence perpetration rates for people who have experienced domestic violence in childhood, heavy drinkers, and divorced people. Stressors like unemployment and having children may also be associated with higher perpetration rates. In the current study, we will measure lifetime perpetrator prevalence rates, therefore we do not expect that we can confirm youth as a risk factor. As for the gender differences, it is difficult to make assumptions because virtually no current literature exists on domestic violence perpetration prevalence in collectivist countries with high gender empowerment. We expect the male perpetrator rates to be slightly higher than those of females (attributable to collectivism and machismo) but the gender difference may be small (because of the high gender empowerment and strong female support systems).

Method

This section contains a summary of the methodology used. For a full description of the methodology, see 'Technical Report 1: Questionnaire Development and Operationalization' and 'Technical Report 2: Data Collecting' (van Wijk 2009a, van Wijk 2009b).

Sample and Fieldwork

We used waiting area intercept surveying as sampling technique. The fieldwork took place during two months in 2009, in four public waiting rooms on Curaçao: the governmental registry office, the largest local health insurance company, a governmental food handling permit distribution unit, and a medical facility, These locations are visited by citizens and clients of all social strata and waiting times are, in general, at least an hour, which gives ample time to fill out the questionnaire. Low educated and elderly people were somewhat underrepresented; this was partially compensated for by carrying out additional fieldwork in social clubs for seniors.

Two researchers of the Public Health Research and Policy Unit trained a team of four interviewers for this field work. The people in the waiting rooms were approached by one of these interviewers, with the request to participate in a local survey of the Medical and Public Health service. After completing the questionnaire, the respondent received a small gift. A total of 816 filled-in questionnaires were collected (see Table 4.1). The response rate (the number of total surveys, divided by the number of qualified, targeted respondents approached by interviewers) was 91%

Table 4.1: Gender, age and level of education of the respondents

		count	*percentage*
Gender	Men	325	40
	Women	491	60
Age	18-29	220	27
	30-39	169	21
	40-49	168	21
	50-59	134	16
	60+	125	15
Education	no education/ primary education	84	11
	pre-vocational secondary education	292	37
	secondary vocational education	172	22
	Sen. gen. secondary education / pre-university education	86	11
	higher professional education / university	162	20
Total		816	100

All participants were offered the choice to fill in the questionnaire anonymously or have an interviewer read the questions and fill in the answers for them. This study uses a mixed-mode design, in which each respondent personally decides which way of participating in the study he or she feels most comfortable. All tests for potential mode effects are described in detail in van Wijk et al., 2012; in general, we found surprisingly few mode effects. Of all statistical analyses performed, almost 90% did not show a statistically significant result at the five percent level.

The standardized questionnaire was based on scientific literature on domestic violence and similar questionnaires about health topics and domestic violence (Straus et al., 1996, Lünneman en Bruinsma, 2005; Van Dijk e.a., 1997; Bos en Van Zanden, 2004; Goderie en ter Woerds, 2005; GGD Amsterdam, 2008). The questionnaire was tested in a pre-pilot and a pilot before it was introduced in the waiting area intercept survey. The questionnaire was available in Papiamentu and Dutch, and included the following topics: demographics, health status: general health status, specific health problems experienced in the past 12 months (9 items), medical consumption in the past 12 months (8 items), Kessler Psychological Distress Scale (α = .89), Loneliness scale (α = .87), specific experience with domestic violence, as a victim (26 items), and as an adult perpetrator (7 items), emotions experienced while undergoing or committing domestic violence (5 emotions). Experiences with domestic violence were subdivided in psychological, physical and sexual violence.

A multi response structure was used to measure life course victim experience; for each of the items the respondent could tick one or more answer categories: 'yes, as a child (<18)', 'yes, as an adult, over a year ago' and 'yes, as an adult, less than a year ago'. To distinguish non-response from non-victims, a 4th category 'no, never' was added. An example of a victim question is shown below:

more than one answer possible

		As an adult		
NB only answer 'yes' if the perpetrator was a partner, friend or family member	Yes, as a child (< 18 years)	Yes, over than a year ago	Yes, less than a year ago	No, never
16-F. I have been slapped or kicked	☐ 1	☐ 2	☐ 3	☐ 4

For the perpetrator items the respondent could tick one of the following answer categories: 'yes', 'no' and 'I'd rather not answer this question'. An example of a perpetrator question is shown below:

	Yes	No	I'd rather not answer this question
D. Have you ever, as an adult, slapped or kicked a a partner, friend or family member?	☐ 1	☐ 2	☐ 3

To measure the severity of the violence experienced, we used two methods: the severity weighted scale method of Straus & Gelles (1990) and the dichotomous score 'minor only'/'severe' from the Revised Conflict Tactics Scale (Straus et al., 1996). For both these methods, each form of violence got a weight which reflects the injury producing potential.

We anticipated that the questions about being a perpetrator of domestic violence could be even more sensitive or threatening to answer for some of the respondents than the 'victim items'. Therefore each of the perpetrator items got a third answer possibility; the respondent could tick one of the following answer categories: 'yes', 'no' and 'I'd rather not answer this question'.

The percentage of respondents that used the 'rather not answer' option varied from 2% to 6% and this percentage appears to be negatively correlated with question sensitivity; for the most sensitive questions (i.e. the questions about perpetrating sexual violence), respondents tended to skip questions rather than indicating that they'd rather not answer (see Figure 4.1).

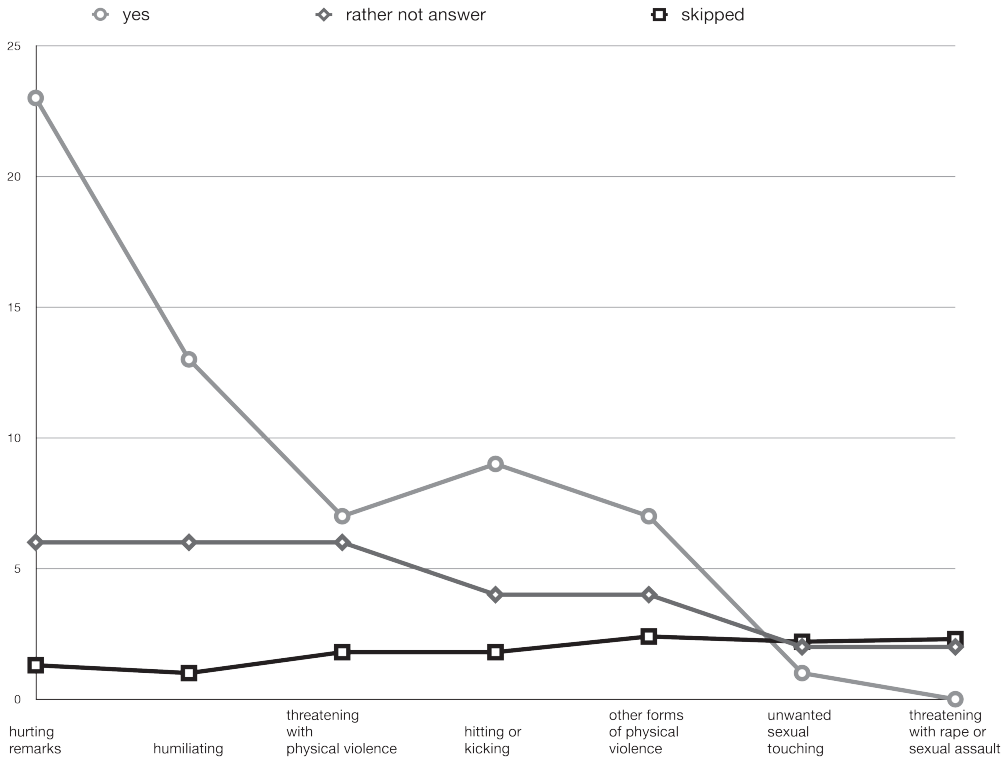

Figure 4.1: percentage questions ticked 'yes', ticked 'I'd rather not answer', or skipped, per perpetrator question

The Pearson correlations (see Table 4.2) between the percentage answered, evaded and skipped questions confirm that more common behaviors are more likely to be openly evaded: the use of the 'rather not answer' option correlates positively with the percentage of confirmed acts of perpetrating violence actions (r=.72) and negatively with the percentage of denied acts of perpetrating violence (r= -.81).

In contrast, questions on the least common acts of perpetrating domestic violence are the most likely to be skipped: the percentage of skipped items correlates negatively with the percentage of 'yes' answers (r= -.73) and positively with the percentage of 'no' answers (r= .77).

These figures indicate that for the most common acts (e.g. making hurting remarks), respondents feel more free to indicate that they would rather not answer the question, while for least common acts (e.g. perpetrating sexual violence), skipping the question is used as a question evading technique.

Table 4.2: Correlations between percentage answered, evaded and skipped questions (n=7 questions)

		skipped	*yes*	*no*
Rather not answer	r	-.74	.72	-.81
	p	.09	.11	.05
Skipped	r		-.73	.77
	p		.10	.07
Yes	r			-.99
	p			.00

We conclude that the missing data from the questions about perpetrating domestic violence are not missing at random, but are used as a question evading alternative when the respondent does not wish to openly communicate aversion to answering the question.

A careful examination of question evading patterns is therefore essential when interpreting the data analysis results, as it gives additional information on the probability of perpetratorship on some items.

Results

We used Chi-square tests to examine the relationship between perpetratorship on one hand, and on the other hand sex, age, education, working status, drinking habits, presence of children, and victim experiences. Table 4.3 shows the percentage of perpetrators of domestic violence by significant risk factors. The variables of sex, working status and drinking habits do not have a significant relationship with perpetrator prevalence and are therefore left out of the table.

The 'skipped' and 'rather not answer' responses (see Figure 4.1) are perceived as a question evading, 'maybe' response. In Table 4.3, we differentiate between 'yes' and 'maybe' responses. Stars in the 'yes' column indicate a significant difference between subgroups in percentage of self-confirmed perpetrators, stars in the 'maybe' column indicate a significant difference in percentage of perpetrators when the percentage 'maybe' is added to the percentage 'yes'.

Table 4.3: percentage of domestic violence perpetrators, by risk factor (n=816)

		Psychological		*Physical*		*Sexual*	
		yes[1]	maybe[2]	yes[1]	maybe[2]	yes[1]	maybe[2]
Age	18-30	***36	**4	***19	*3	1	4
	31-49	23	11	10	7	1	5
	50+	18	8	6	7	2	6
Education	≤ jr. general 2ND	17	10	11	7	2	6
	≥ sr. 2ND vocational	***33	***6	12	5	1	4
# children in hh	0	20	10	6	6	1	5
	1-2	28	6	13	5	1	3
	3 or more	*29	10	***18	**7	2	9
victim as a child,	no	22	8	10	5	1	4
psychological	yes	***48	***6	**20	*6	***6	**8
victim as a child,	no	21	7	8	5	0	4
physical	yes	***46	***8	***28	***5	***5	**5
victim as a child,	no	24	7	10	4	1	4
sexual	yes	***50	**4	***32	***4	**6	*6
victim as an adult,	no	22	7	7	4	1	4
psychological	yes	***35	***11	***22	***9	**3	**6
victim as an adult,	no	21	8	8	5	0	4
physical	yes	***49	***5	***28	***4	***5	*4
victim as an adult,	no	25	7	11	4	1	4
sexual	yes	**44	**7	*21	5	***9	**5
	Total	25	8	11	6	1	5

*1Groups with significant higher prevalence of 'yes': *p<.05, **p<.01, ***p<.001*

*2Groups with significant higher prevalence of 'yes+maybe' combined: *p<.05, **p<.01, ***p<.001*

Lower confirmation percentages (the 'yes'category) are sometimes compensated by higher question evading percentages (the 'maybe' category). For example the percentage of 18-30 year old perpetrators of physical violence seems to be twice as high as the percentage of 50+ perpetrators (36% vs. 18%), but when 'maybe' is counted in, the difference between these age groups is much smaller (40% vs. 26%). Generally speaking, differences between subgroups tend to become smaller and less significant when 'yes+maybe' is used as the prevalence estimator instead of 'yes' alone. This indicates that subgroups differences in perpetrator prevalence estimates may be partly attributable to differences in candidness and question evading. This is an important finding from a methodological perspective, because it supports the point of view that an analysis of the patterns in missing data, or other types of question evading, is an essential part of understanding answer patterns, especially in the case of sensitive questions.

The statistics in Table 4.3 suggest that being subjected to any type of domestic violence is associated with higher probabilities of committing domestic violence as an adult. A higher prevalence of committing *psychological* domestic violence is associated with being young and high educated. A higher prevalence of committing *physical* domestic violence is also associated with being young, and with having children in the household.

Some of the risk factors in Table 4.3 are correlated; for example, people who have been sexually molested are also mostly physically abused, $\chi^2(1)=97.0$, $p<.001$. To examine the relationship between our set of antecedents and the dependent variables, we used a binary logistic regression analysis with victim experiences, age, education, working status, drinking habits, and number of children in the household as predictors and the percentage of 'yes' vs. 'no' answers to perpetrator questions as dependent variables. The results of these analyses are displayed in Table 4.4.

There are no significant differences in prevalence between the sexes, but different mechanisms may influence the likelihood to commit domestic violence for men and women. Therefore, the logistic regression analyses were carried out for men and women separately.

Table 4.4: significant B-weights in logistic regression analysis (dependent=perpetrator 'yes' vs. 'no'), by predictor (n=325 men, 491 women).

		psychological		*physical*		*sexual*
		men	Women	men	women	men[1]
$\chi^2(11)=$		47.9***	68.0***	34.4***	67.0***	28.1**
Age		-.03*	-.02*		-.04**	
Education		.8*	1.0**			
Working status		.7*				
# children in household				.5 p=.06	.6*	
Child victim psychological						4.4*
	physical	1.0**		1.3**	1.0*	3.2 p=.08
Adult victim	psychological				1.3**	
	physical	1.2**	1.3**	1.3*	1.2**	6.2 p=.06

**p<.05, **p<.01, ***p<.001*

From Table 4.4 we conclude that physical domestic violence victimization has the strongest impact on perpetratorship: physical domestic violence victimization, whether in childhood or as an adult, is associated with higher perpertration probabilities for almost each type of violence. Age, education and working status are mostly associated with a higher prevalence of psychological violence, and the probability to have committed physical domestic violence rises with the number of children in household[2] (see Figure 4.2). Furthermore, the best predictor of male sexual domestic violence perpetratorship, is psychological domestic violence victimization in childhood.

[1] No significant relationship between the predictors and perpetrating sexual domestic violence was found for women

[2] The relationship between perpetrating physical violence and the number of children in the household is significant for the answer 'yes' for women and for 'yes+maybe' for men, but gender differences are very small

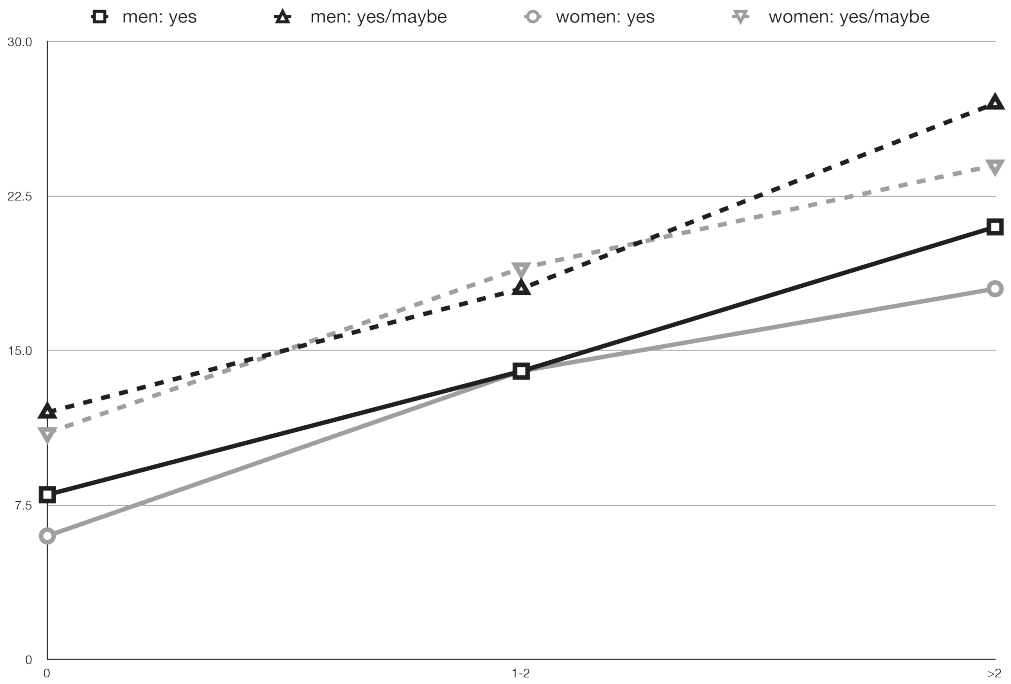

Figure 4.2: Percentage perpetrators of physical violence by sex and nr. of children in the household (n=325 men, 491 women)

The same logistic regression analysis was carried out with the percentage of 'yes+maybe' vs. 'no' answers to perpetrator questions as dependent variables (see Table 4.5). Like we have seen in Table 4.3, the relationship between the predictors and the dependent variables tends to weaken when 'maybe' is counted as a confirmation. When evading the question is counted as a confirmation, the influence of age disappears. This confirms the preliminary interpretation of youth being associated with candidness rather than with a higher prevalence of domestic violence perpetration (see Table 4.3). The relationship between psychological violence victimization as a child and a higher sexual violence perpetrating prevalence for men is no longer significant either[1].

[1] 0.4% of men who have not suffered psychological domestic violence in childhood (n=281) and 12.5% of male victims of psychological domestic violence in childhood (n=42) confirm perpetrating sexual violence. But 4.8% of male psychological violence victims and 17.5% of non-victims fall in the sexual violence perpetrating 'yes+maybe' category, so when evading the questions about perpetrating sexual violence are counted as a confirmation, the perpetration prevalence difference between victims and non-victims of psychological domestic violence in childhood, becomes smaller.

Table 4.5: significant B-weights in logistic regression analysis (dependent=perpetrator 'yes+maybe' vs. 'no'), by predictor (n=325 men, 491 women)

		psychological		*physical*	
		men	women	men	women
$\chi^2(11)=$		33.7***	53.3***	26.0**	51.0***
Education		.6*	.8**	$.7^{P=.06}$	
Working status		$.3^{P=.06}$			
# children in household				$.5^{P=.06}$	
Child victim	physical	.9**		.9*	.8*
Adult victim	psychological				1.1**
	physical		1.3**	1.0*	.9*

*p<.05, **p<.01, ***p<.001

A higher education is still associated with a higher prevalence of committing psychological violence. The relationship between working status[1] and the number of children in the household on one hand, and perpetratorship on the other hand, is still almost as significant.

A general conclusion from the results in Table 4.4 and Table 4.5 is that the most consistent and convincing predictor of perpetrating domestic violence is being a victim of physical, and to a lesser extent, psychological domestic violence.

4

Severity

To investigate whether the severity of the violence to which our respondents were exposed affects the probability of perpetratorship, binary logistic regression analyses were done for each sex separately, with age and level of education in the first block, and the severity of violence experienced in the next block. Only victims of domestic violence were included in these analyses. The dependent variables in these analyses were the dichotomous variables[2] measuring whether the respondent was a perpetrator of psychological, physical or sexual violence.

The results of these analyses show that the respondents who have suffered the most severe forms of physical violence in childhood, have the highest probabilities to be an adult perpetrator of physical (both genders) and of sexual violence (men only). For perpetratorship of physical violence the B-weights of severity are .25, p<.05 (men) and .24, p=.06 (women). For perpetratorship of sexual violence the B-weights of severity are .34, p<.05 (men) and for women not significant (B=.29, p=.09).

The relationship between severity of physical violence experienced in childhood and the percentage of perpetrators is shown in Figure 4.3.

[1] The relationship between level of education and working status is moderated by age; student aged respondents (18-29) are frequently not working when they have either no education or are high educated (e.g. pre-university). For respondents aged 30-64 level of education and working status are positively correlated and for the elderly, there is no relationship between level of education and working status.

[2] 'no' vs. 'yes' and 'no' vs. 'yes+maybe', were tested, like in Table 3.2 and Table 3.3, but the B-weights for 'yes' and 'yes+maybe' were similar when rounded to one decimal. We will discuss only the B-weights for 'yes'.

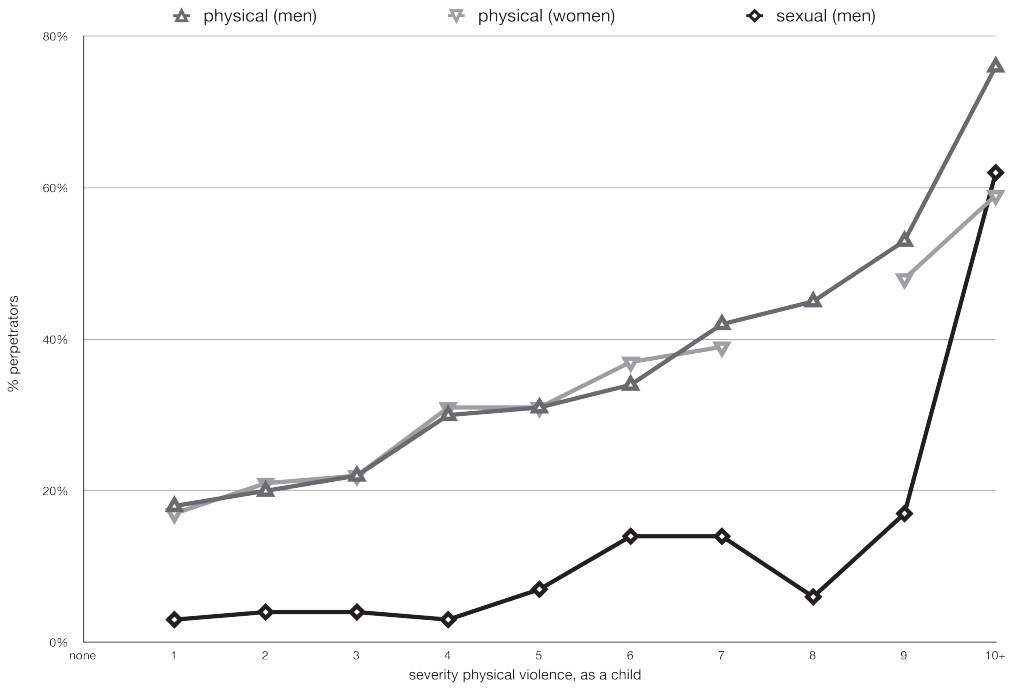

Figure 4.3: percentage of adult perpetrators of physical or sexual violence, by severity of physical violence experienced as a child (n=325 men, 491 women)

The severity of psychological violence experienced by adult men is also weakly associated with an increased probability to be a perpetrator of sexual violence, but this relationship is not significant, B=.9, p=.09.

The severity of sexual violence victimization shows no significant relationship with perpetratorship probabilities, but this may be partly attributable to the fact that only a small minority of our respondents are victims of sexual violence, resulting in poor statistical power to detect significant relationships.

Discussion

The Curaçao domestic violence survey was primarily carried out to estimate the prevalence of domestic violence victimization and to identify risk factors, but questions on perpetrating psychological, physical and sexual domestic violence were also included. No distinction was made between partner violence and violence against other family members like, for example, children.

Sensitive questions, such as on domestic violence, are known to evoke higher percentages of missing data, so we offered the respondents a 'rather not answer' option in the questionnaire. But for the most sensitive questions (i.e. the questions about perpetrating sexual violence), respondents tended to skip questions rather than indicate that they'd rather not answer. From this we concluded that the missing data were used as a question evading alternative when the respondent did not wish to openly communicate aversion against answering the question.

The percentage of respondents evading questions was therefore part of the data analysis. Comparing confirmation and question evading percentages, we found that lower confirmation percentages are sometimes compensated by higher question evading percentages. This indicates that subgroups differences in perpetrator prevalence estimates may be partly attributable to differences in candidness and question evading.

Risk factors

Based on the current literature, we have investigated the relationship between sex, age, education, working status, drinking habits, presence of children, and domestic violence victimization on one hand, and domestic violence perpetratorship on the other hand.

Like in most studies in Western countries on this subject, the most striking finding in this research is the virtual absence of gender differences in both the general prevalence of perpetratorship, as well as for the factors that seem to influence the probability of being a perpetrator of domestic violence, which are age, education, the presence of children, and domestic violence victimization.

Being young is a confirmed risk factor in most studies for becoming a perpetrator of domestic violence. But we did not expect to find a higher perpetrator prevalence for young respondents in this study, because we use lifetime prevalence. The questions in our research referred to perpetrating domestic violence in one's entire adult life: the elder respondents have all been young and are therefore not expected to have a lower lifetime prevalence, barring maybe some underreporting attributable to memory effects. Younger respondents did report perpetrating domestic violence more often than older respondents, but the older respondents evaded the questions more often. When evading the question is counted as a confirmation, there is no significant relationship between age and lifetime perpetratorship, which confirms our hypothesis.

The risk factor of domestic violence victimization increases the probability to become a perpetrator for both sexes, especially being a victim of physical violence. The severity of the violence suffered has a clear impact on the probability also. We will discuss our findings in more detail in the next paragraphs.

Perpetrating psychological violence

Almost a third of our respondents indicated to have teased or humiliated people in their inner social circle. Being young seems to be associated with a higher prevalence of psychological domestic violence, but this could be attributed to more openness of the younger respondents, since older respondents evaded these questions more often.

Both men and women are more likely to have committed psychological domestic violence when they are higher educated. Men without a job are also more likely to have committed psychological domestic violence compared to working men, independent of their level of education: unemployed men admit to perpetrating psychological domestic violence more often than working men, whether they are low or high educated.

The best predictor of being an adult perpetrator of psychological violence is being a victim of physical violence, but there is a gender difference: physical violence victimization in childhood raises the probability to commit psychological violence for men, while women are more likely to commit psychological violence when they have suffered physical domestic violence as adults.

Perpetrating physical violence

More than one out of ten of our respondents admitted to having committed some from of physical domestic violence. Men and women are much more likely to commit physical violence when they are victims of physical domestic violence themselves, either as children or as adults. The probability to become an adult perpetrator of physical domestic violence increases sharply with the severity of the physical violence that the respondents experienced in childhood.

There is also a tendency that the probability to commit physical domestic violence increases with the number of children in the household. This is consistent with other studies; having a child aged <5 years old in the house was identified by Roberts (2011) as a stressor for men that significantly increased the risk of perpetrating domestic violence.

For women, adult psychological domestic violence victimization also increases the probability to commit physical violence against people in their inner social circle.

Perpetrating sexual violence

Questions about committing sexual domestic violence were often evaded by skipping the question. We estimate the prevalence to be between 1% (confirmed) and 6% (when we add the percentages 'evaded' and 'confirmed'). We have not identified any variables that increase the probability to commit sexual violence for women, but for men, the best predictor of sexual domestic violence perpetratorship is being teased and humiliated in childhood.

Being a male victim of physical violence, either as a child or as an adult, is weakly associated with an increase in the probability to commit sexual violence, but the severity of the violence suffered is more influential: men who have suffered severe forms of physical violence in childhood are much more likely to commit sexual violence than men who have experienced only minor forms of physical violence in childhood, or none at all.

Conclusions

Domestic violence perpetration prevalence on Curaçao is comparable to findings in Family Conflict Studies in Western countries: the prevalences we calculated for different forms of domestic violence are almost identical to findings in a Dutch study where similar definitions were used (van de Knaap et al., 2010): both studies found over 25% of respondents to have committed psychological domestic violence, physical violence was perpetrated by 11%-17% of Curaçaoans and 19% of Dutch respondents, and sexual violence by 1%-6% of the respondents in Curaçao and 2% in the Netherlands. Risk factors in Curaçao are also very much like those found in Western countries: men and women do not differ in self-reported aggression against friends and family members, but physical violence victimization, especially being a victim of severe physical violence in childhood, is associated with an increased probability to commit domestic violence.

Curaçao is a collectivist country, which is associated with higher male perpetration rates, with a matrifocal orientation and high gender empowerment, which is associated with gender similarity in perpetration rates. Since we found gender similarity in the perpetration rates on Curaçao, we conclude that the influence of gender empowerment seems to be more decisive than the collectivistic/individualistic society dimension. Nevertheless we should interpret these results with caution, since we have measured domestic violence perpetration rates and not intimate partner violence perpetration rates. It is still very well possible that intimate partner violence is more often perpetrated by men, and that women direct their aggression more towards other family members, like children.

An important limitation of this study is that we have only measured lifetime perpetrator prevalence; we know nothing about the perpetrator's relationship with the victim(s), or about the frequency, the context and initiation of the violence. Furthermore, not all potential risk factors were included, like the background characteristics socio-economic status, religion and race. These have been confirmed as a risk factor in some studies, but not in others (Martin 1985, Weidman, 1986, Sommer 1990, Goldsmith 1984, Scarf 1983, Hampton, Gelles and Harrop 1989, Straus and Gelles 1986, Lockart 1987), and could be added in future studies. Finally, underreporting is a serious risk for sensitive subjects like perpetrating domestic violence. Underreporting causes the magnitude of the phenomenon to be underestimated, but different degrees of underreporting in various subgroups is an even more serious problem as it may be a threat to the validity of identified risk factors. Offering the respondents the possibility to evade questions appears to compensate somewhat for subgroups differences in candidness. An analysis of the patterns in missing data, or other types of question evading, is an essential part of understanding answer patterns, especially for sensitive questions.

Self reported domestic violence perpetration on Curaçao should be studied in more detail: information about the relationship between perpetrator and victim, as well as context, frequency and severity of the violence are essential to get a clear picture of the scope and nature of this phenomenon. Further research on question evading patterns is also recommended for this sensitive subject.

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5. Associations between domestic violence victimization and long term health in Curaçao

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Abstract

There is a strong body of research that indicates an association between domestic violence and poor health outcomes. The range of risks related to domestic violence is long, starting from decreased general well-being to increased mortality. Most of the research was produced in the last 30 years and there are still extensive gaps in the available literature; there are almost no longitudinal studies and most of the research focuses on the developed countries. This paper attempts to disclose the impact of domestic violence on health care need and utilization in Curaçao. It reveals a strong association between different forms of abuse and negative healthcare outcomes.

Keywords: Domestic Violence, Health Care Utilization, Need for Health Care

Introduction

Nowadays, the issue of domestic violence is recognized as a significant social phenomenon in most countries. Domestic violence is not limited to spousal abuse or intimate partner violence (IPV), but includes violence perpetrated by intimate partners, family and/or friends. It can be divided into three main categories; psychological, physical and sexual violence. The list of short and long term after-effects of domestic violence is very long and includes injury, unwanted pregnancy, gynaecological problems, STDs including HIV/AIDS, headaches, permanent disabilities, asthma, irritable bowel syndrome, self-injurious behaviours (smoking, unprotected sex) and mental health outcomes like depression, fear, anxiety, low self-esteem, sexual dysfunction, eating problems, obsessive-compulsive disorder and post traumatic stress disorder (World Health Organization & Krug, 2002, Draijer, 1990).

The risk of physical injuries for victims of physical domestic violence is obvious, but psychological domestic violence is also associated with physical health consequences. Coker et al., (2000) found that psychological intimate partner violence was just as strongly associated with most adverse health outcomes as was physical IPV; women experiencing psychological IPV were significantly more likely to report poor physical and mental health, including a disability preventing work, arthritis, chronic pain, migraine and other frequent headaches, stammering, sexually transmitted infections, chronic pelvic pain, stomach ulcers, spastic colon, and frequent indigestion, diarrhoea, or constipation.

A large part of the research on domestic violence and its consequences has been carried out in Western countries, but in recent years, some studies have been done in other parts of the world as well. The World Health Organization & García-Moreno (2005) have researched the association between female intimate partner violence victimization (IPV) and health in ten countries[1] and found that, across the many different study sites and populations, women who had ever experienced moderate or severe IPV were more likely than non-victims to have a range of physical and mental health problems in the month preceding the interview, and to rate their general health to be poor or very poor. These results demonstrate that even non-recent violence is associated with recent negative health outcomes.

Domestic violence against women and its consequences has been studied much more often than domestic violence against men, but Carbone-López (2006) analyzed this topic with data from a national probability sample of U.S. men and women. It was found that IPV victimization is associated with negative health outcomes like poor physical health, psychological distress and mental illness, for both sexes.

This paper is the first to explore the relationship between male and female domestic violence victimization and health problems in Curaçao. No attempt will be made to estimate the associated cost, but to better understand the magnitude of the impact of domestic violence on health, a summary of the current literature on health economic consequences of domestic violence is presented in the next paragraph.

Health economic consequences of domestic violence

Domestic violence has many costs, both direct to the victims and to the society they live in. Medical consequences and increased health care utilization are often considerable and have been studied in empirical research for over 20 years. The spectrum of costs includes the following health related costs (Access Economics, 2004):

- Healthcare costs
- Pain, suffering and premature mortality costs (based on -quality adjusted- life years lost)
- Production related costs (costs of lost production from absenteeism, search and hiring costs, lost unpaid work, retraining costs, permanent loss of labor capacity)
- Second generation costs (costs of counseling, childcare, child protection services, remedial/special education, increased future use of government services, increased juvenile and adult crime)

Estimates of the total costs of domestic violence, including criminal justice system and administrative costs attributable to domestic violence, lie between 0.35-0.55 percent of the GDP in most studies (Waters et al., 2005, Walby, 2004, Access Economics, 2004, Theodore et al., 2008); the increased healthcare and social services cost generally mount up to 0.05-0.07 percent of the GDP.

[1] Bangladesh, Brazil, Ethiopia, Japan, Peru, Namibia, Samoa, Serbia and Montenegro, Thailand, and the United Republic of Tanzania

Method

This section contains a summary of the methodology used. For a full description of the methodology, see 'Technical Report 1: Questionnaire Development and Operationalization' and 'Technical Report 2: Data Collecting' (van Wijk 2009a, van Wijk 2009b).

Sample and Fieldwork

Waiting area intercept surveying was used as sampling technique. The fieldwork took place during two months in 2009, in four public waiting rooms in Curaçao: the governmental registry office, the largest local health insurance company, a governmental food handling permit distribution unit, and a medical facility. These locations are visited by citizens and clients of all social strata and waiting times are, in general, at least an hour, which gives ample time to fill out the questionnaire. Low educated and elderly people were somewhat underrepresented, this was partially compensated for by carrying out additional fieldwork in social clubs for seniors.

Two researchers of the Public Health Research and Policy Unit trained a team of four interviewers for this fieldwork. The people in the waiting rooms were approached by one of these interviewers, with the request to participate in a local survey of the Medical and Public Health service. After completing the questionnaire, the respondent received a small gift. A total of 816 completed questionnaires were collected (see Table 5.1).

Table 5.1: Gender, age and level of education of respondents

		count	*percentage*
Gender	Men	325	40
	Women	491	60
Age	18-29	220	27
	30-39	169	21
	40-49	168	21
	50-59	134	16
	60+	125	15
Education	no education/ primary education	84	11
	pre-vocational secondary education	292	37
	secondary vocational education	172	22
	Sen. gen. secondary education / pre-university education	86	11
	higher professional education / university	162	20
Total		816	100

All participants were offered the choice to fill in the questionnaire anonymously or have an interviewer read the questions and fill in the answers for them. This study uses a mixed-mode design , in which each respondent personally decides with which way of participating in the study he or she feels most comfortable. The response rate (the number of total surveys, divided by the number of qualified, targeted respondents approached by interviewers) was 91%.

[1] The consistency across survey modes was high (van Wijk, N.Ph.L. et al., (2012).

Questionnaire

We developed a standardized questionnaire, based on scientific literature and similar questionnaires about domestic violence (Straus et al., 2004, Lünneman en Bruinsma, 2005; Van Dijk e.a., 1997; Bos en Van Zanden, 2004; Goderie en ter Woerds, 2005; GGD Amsterdam, 2008). The questionnaire was available in Papiamentu[1] and Dutch.

Domestic violence victimization

Experiences with domestic violence were subdivided in psychological, physical and sexual violence. A multi-response structure was used to measure life course victim experience; for each of the items, the respondent could tick one or more answer categories: 'yes, as a child (<18)', 'yes, as an adult, over a year ago' and 'yes, as an adult, less than a year ago'. To distinguish non-response from non-victims, a 4th category 'no, never' was added. Table 5.2 shows the different categories and subcategories that were used. Cronbach's alphas are calculated separately for 'as a child' and 'as an adult', per category.

Table 5.2: Variables measuring experiences of domestic violence as a victim

Category	*Alpha (per category)*	*Subcategories*
Psychological	As a child, α=.74	Humiliate (2 items)
	As an adult, α=.62	Restrict contact with others (4 items)*
		Restrict freedom (4 items)*
Physical	As a child, α=.75	Threaten (2 items)
	As an adult, α=.84	Push, hold too hard, confine (3 items)
		Hit, kick, hit with objects, cut, burn (4 items)
Sexual	As a child, α=.85	Sexual threats, exhibitionism (3 items)
	As an adult, α=.83	Sexual assault, rape (3 items)

**n.a. for childhood experiences*

The respondents indicated the frequency of the experiences, rated on a six point scale, ranging from 1= happened once to 5= (almost) every day and additionally 6=it varies. The question 'how often did it happen' was not applicable for psychological violence, because the questions were formulated in such a way that occasional events did not count. For example, an item in the subcategory 'humiliating' was formulated as 'someone ridiculed me on a regular basis'.

Health status

The health status of the respondents was measured in three components: self assessed general health status, specific health problems experienced (indicator for health care need), and medical consumption (indicator for health care use). The items in this part of the questionnaire were taken from the Amsterdam Health Monitor (GGD Amsterdam, 2006):

» Self assessed general health status (SAH). 1 item was used: a five-point Likert scale to define SAH in five answer categories: bad, moderate, good, very good and excellent.

[1] The questionnaire was first developed in Dutch, and subsequently translated into Papiamento. The Papiamento version was checked extensively by native speakers

» Specific health problems experienced in the past 12 months. 9 dichotomous (yes/no) items were used: broken bones, migraine or severe headache, weight problems, sleep problems, abnormal appetite, menstrual problems, blood circulation problems, skin problems, problems with ears /nose/throat (ENT).

» Medical consumption / health care use (HCU). 8 dichotomous (yes/no) items were used: visited a general practitioner (during the past three months), visited a specialist, visited social work, visited a mental health professional, used policlinical care, used hospital care, used sedatives/tranquillizers, used antidepressants (all during the past year).

Data analysis

Regression models with domestic violence victimization (yes/no) as the independent variable, age, education and type of health insurance (PP vs 'other')[1] as control variables and SAH, health problems and HCU as dependent variables were used to determine the association between domestic violence victimization and health outcomes. Ordered logistic regression was used to analyze relationship between the predictors on SAH, Poisson regression[2] was used for the dependent variable 'total no. of health problems' and 'total no. of HCU', and binary logistic regression analyses were used for the specific health problems en types of care.

Details on the relationship between sexual domestic violence victimization and specific types of health problems and HCU and were only calculated for female respondents, because the number of male victims was very small (n=7).
Independent variables: domestic violence victimization
The independent variable is domestic violence victimization. This dichotomous (yes/no) variable is created for psychological, physical, sexual and 'any' domestic violence (see Table 5.3).

Table 5.3: Lifetime victimization prevalence by gender and type of domestic violence (n=325 men, 491 women)

	psychological	*physical*	*sexual*	*any*
Men	27	27	2	39
Women	**39	*34	***16	**51
Total	34	31	11	46

*Significant gender differences: *p<.05, **p<.01, ***p<.001*

Dependent variables:

SAH, Health Problems, Health Care Use

Self Assessed Health is a five level ordinal variable, but because of the very low frequency of answers in the bottom category ("Bad"), the two bottom categories have been combined, which resulted in a four level ordinal variable: bad/moderate 19%, good 43%, very good 25%, excellent 13%. Men rated their own health as better than women did, Z= -4.3, p<.001.

[1] association with Pro-pauper Insurance (PP) serves as an indicator of poor socio-economic status and a higher prevalence of chronic diseases

[2] Poisson regression is appropriate when the dependent variable is a count

Health Problems are dichotomous (yes/no). Since the survey contains a separate question for each one of a list of conditions, it was also possible to construct a variable giving the total number of conditions experienced within a year.

Table 5.4 shows the prevalence of the health problems in the year preceding the study. The total number of health problems is significantly higher for females, Z= -7.2, p<.001.

Table 5.4: prevalence of health problems in the past year by gender (n=325 men, 491 women)

	male	*female*
migraine or severe headache	10	***26
weight problems	15	***28
ENT- or eye problems	20	*27
sleep problems	6	***14
blood circulation problems	4	***12
abnormal appetite	4	**10
skin problems	6	7
broken bones	5	5
menstrual problems	n.a.	17
Average no. of health problems	0.6	***1.2

*Significant gender differences: *p<.05, **p<.01, ***p<.00*

Health care use data are also dichotomous (yes/no), and an ordinal variable giving the number of types of health care use within a year (HCU) was constructed. Table 5.5 shows for each type of care the percentage of respondents that have used it in the year preceding the study. The total number of HCU is significantly higher for females, Z= -4.5, p<.001.

Table 5.5: Health care use in the past year by gender (n=325 men, 491 women)

	male	*female*
GP (past 3 months)	61	***75
specialist	35	*42
policlinic	10	11
hospital	8	*13
sedatives/tranquillizers	7	**12
mental health professional	4	6
social work	4	6
antidepressants	2	*6
Average no. of HCU	1.3	***1.7

*Significant gender differences: *p<.05, **p<.01, ***p<.001*

Health problems

Table 5.6 demonstrates the B-weights of domestic violence on self-assessed health (SAH) and health problems. All types of domestic violence victimization are associated with a higher number of health problems for women. For men, only physical domestic violence victimization is associated with more health problems. Self-assessed health is lower for female victims of psychological and physical domestic violence.

Table 5.6: B-weights of domestic violence victimization on SAH and health problems, by type of domestic violence and gender (n=325 men, 491 women)

	any		*psychological*		*physical*		*sexual*
	M	F	M	F	M	F	F[1]
SAH	-.04	-.52**	.10	-.47*	-.28	-.35*	-.26
# health problems	.39**	.39***	.25	.25**	.47**	.39***	.39***
Migraine	.78*	.64**	.57	.44*	.84*	.56*	.79**
weight problems	.54	.62**	.26	.56*	.57	.93***	.68*
blood circulation	.88	.58*	1.2*	.12	1.0	.85**	.63*
skin problems	.98*	.45	1.2*	.29	.79	.80*	.96*
ENT / eye problems	.14	.58**	.00	.48*	.18	.49*	.89**
broken bones	.39	-.31	.19	.08	.72	.25	18
sleep problems	.62	.43	.08	.22	.75	.39	18
abnormal appetite	.22	.46	.54	.25	.49	.26	2.0*
menstrual problems		.38		.45*		.55*	.58*

**p<.05, **p<.01, ***p<.001*

The types of health problems that are significantly associated with domestic violence victimization are:

- Migraine and weight problems: all types of violence have positive B-weights; all are significant for women but only physical domestic violence is significant for men[2].
- Blood circulation and skin problems: physical and sexual domestic violence have significant positive B-weights for women, psychological domestic violence has a significant positive B-weights for men.
- Menstrual problems and ENT/eye problems: all types of violence have positive B-weights for for women.

[1] None of the B-weights of male sexual DV victimization are significant (BSAH=.50, B# health problems=.14)

[2] This may be (partly) explained by the smaller number of men in the sample, the smaller prevalence of male DV victimization, and the smaller amount of male health problems and health care use, resulting in less statistical power to detect significant relationships

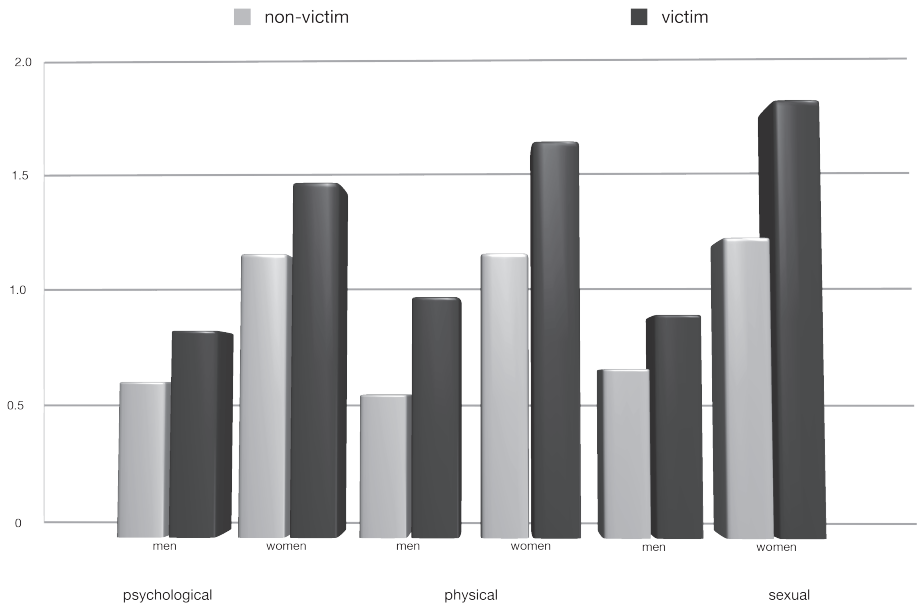

Figure 5.1: average number of health problems by gender and type of violence (n=325 men, 491 women)

Figure 5.1 demonstrates the average number of health problems of victims and non-victims by gender and type of violence. Men and women show similar patterns of higher numbers of health problems for victims, compared to non-victims.

Health care use

Table 5.7 shows the B-weights of domestic violence on health care use. All types of domestic violence victimization are associated with a higher number of HCU for women, but not for men.

Table 5.7: B-weights of domestic violence victimization on health care use, by type of domestic violence and gender (n=325 men, 491 women)

	any		*psychological*		*physical*		*sexual*
	M	F	M	F	M	F	F[1]
# health care use	.13	.24**	.10	.17*	.10	.25**	.37***
sedatives/ tranquillizers	1.2*	.86**	1.2**	.83**	.63	.69*	1.1*
antidepressants	2.4*	1.1*	2.2*	.79*	1.6*	.87**	.78*
social work	.88	.84*	.53	.79*	.90	.10*	1.3**
mental health	.74	.92*	.65	.18	.55	1.0**	1.5***
policlinical care	-.53	.43	-.45	.45	1.0*	.59*	.74*
hospital care	-.11	.42	.11	.14	.34	.30	.74*
general practitioner	.17	.17	.41	.29	.12	.30	.24
specialist	.37	.22	.26	.07	.54	.10	.25

**p<.05, **p<.01, ***p<.001*

The types of HCU that are significantly associated with domestic violence victimization are:

- Sedatives/tranquillizers and antidepressants: all types of violence have significant positive B-weights for men and women
- Social work: all types of domestic violence have significant positive B-weights for women, and positive weights for men.
- Mental health and policlinical care: physical and sexual domestic violence have significant positive B-weights for women, physical domestic violence has a significant positive B-weight for men for policlinical care.
- Hospital care: sexual domestic violence has a significant positive B-weight for women.

Figure 5.2 demonstrates the average number of HCU of victims and non-victims by gender and type of violence. The total no. of HCU of men is more or less equal for victims and non-victims, but female domestic violence victims use more health care than non-victims, especially in case of sexual domestic violence victimization.

[1] The B-weight of male sexual DV victimization is not significant (B_{HCU}=.10)

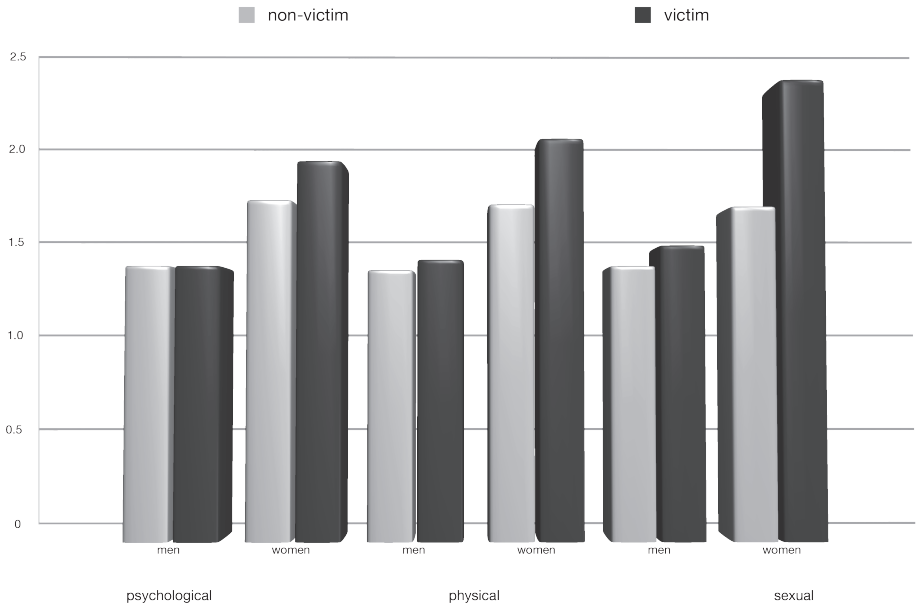

Figure 5.2: average number of HCU by gender and type of violence (n=325 men, 491 women)

Discussion

This research is the first to examine the association of domestic violence with health outcomes and health care utilisation in Curaçao. Consistent with the current international literature, we found a strong association between different forms of abuse and negative healthcare outcomes.

The results clearly indicate that victims of domestic violence have worse self-assessed health, more health problems and more health care use than non-victims. All types of violence: psychological, physical and sexual have specific effects on the victims health and consequently on the medical use.

Women's health appears to be more affected by domestic violence victimization than men's health, but this may be partly attributable to the smaller number of men in the sample, the smaller prevalence of male domestic violence victimization, and the smaller amount of male health problems and health care use, resulting in less statistical power to detect significant relationships.

Psychological domestic violence victimization

Male and female victims of psychological domestic violence use more tranquillizers and antidepressants than non-victims. Male victims have an increased probability to suffer from blood circulation problems (probably high blood pressure) and skin problems; female victims have more migraine, weight problems, ENT/eye problems and menstrual problems than non-victims.

Physical domestic violence victimization

Male and female victims of physical domestic violence more often have migraine, use more antidepressants and make more often use of policlinical care than non-victims. Female victims have an increased probability of most health problems in the questionnaire; they have more weight problems, blood circulation problems, skin problems, ENT/eye problems and menstrual problems than non-victims, and also make more use of tranquillizers, social work and mental health services.

Sexual domestic violence victimization

Sexual domestic violence victimization appears to have the largest negative impact on female health. Almost all health problems in the questionnaire (migraine, weight problems, blood circulation problems, skin problems, ENT/eye problems, abnormal appetite and menstrual problems) have higher prevalences for female victims, compared to non-victims. The impact on health care use is also larger than for any other type of domestic violence victimization; female victims make more use of almost all types of health care in the questionnaire (tranquillizers, antidepressants, social work, mental health services, policlinical care and hospitalization).

Even though the results of this research are robust and consistent with other literature it is important to mention several limitations. First of all, the causality in relation between domestic violence and the negative outcomes is assumed. The cross sectional design of this research does not provide any evidence that indeed domestic violence is the “cause” of negative health outcomes. Second, the recall and disclosure bias is assumed to be relatively strong for sensitive subjects like domestic violence; the magnitude of the problems is most probably underestimated.

Further examination of the available database could be used to create risk profiles of victims. There is a whole range of important questions concerning domestic violence that still need to be addressed. By establishing the most vulnerable groups, public policy efforts can be more focused and therefore more cost effective. More knowledge about the onset of victimization could provide very valuable insight – when it first started, with what frequency and what kind of abuse. Such data would allow the researchers to establish a risk pattern throughout victim’s life. Some universal frameworks should be developed that would allow for comparability between studies. This is particular difficult in case of emotional abuse, since different behaviours are acceptable across cultures. Further research should also focus on negative outcomes of domestic violence other than health care utilisation and need. Possible areas of exploration include general well being, social contacts or productivity.

Domestic violence is an important policy concern. It brings high societal and individual costs and it is a violation of human rights. This paper shows that in Curaçao, like in other parts of the world, it is associated with negative health outcomes and increased health care utilisation.

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6. The Effectiveness of a Tailored Mixed Mode Approach for Surveying Sensitive Topics in the Caribbean

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Abstract

When surveying sensitive topics, serious underreporting of the phenomena under study is a grave danger to the validity of the data. Domestic violence is a prime example of a sensitive topic, as it concerns behavior that is socially frowned upon, may be illegal, and concerns the private domain. A special mixed-mode survey was designed to asses the prevalence of domestic violence on Curaçao and its health consequences. Great care was taken to reduce selective non-response and stimulate open and honest responses on this topic. We describe how we successfully implemented and tailored a mixed mode survey to our research problem, and report on its consequences for the resulting data quality.

Keywords: Self-administered questionnaire, face-to-face interview, domestic violence, literacy

Introduction

When surveying sensitive topics, a grave danger to the validity of the data is serious underreporting of the phenomena under study (Tourangeau, Rips, and Rasinski, 2000). This can be caused by selective non-response, as respondents who expect negative consequences from participation in the survey refuse to participate or drop out (Lensvelt-Mulders, 2008: Catania et al., 1990). But, even if they do cooperate in a survey on a sensitive or threatening topic, respondents will show a tendency to answer in a socially desirable way and consistently underreport socially undesirable behavior (Sudman and Bradburn, 1982). Tourangeau and Yan (2007) point out, that respondents in surveys want to avoid embarrassment or possible repercussions from disclosing sensitive information and therefore 'lie'.

What makes a topic sensitive? In general, topics are sensitive when truthful responding to the questions asked, poses an internal or external threat to the respondents (Lee, 1993). These include questions that intrude in the private sphere or delve into deeply personal experiences, are concerned with deviance, or coercion and domination (Lee and Renzetti, 1990; Schaeffer, 1999; Tourangeau and Yan, 2007). Domestic violence is a prime example of a sensitive topic, as it concerns behavior that is socially frowned upon, may be illegal, and concerns the private domain (cf. Coutts and Jann, 2008).

When faced with the challenge to assess the prevalence of domestic violence on Curaçao and its health consequences, we designed a special mixed-mode survey to reduce selective non-response and stimulate open and honest responses. We give a concise overview of empirical research into data collection modes for sensitive questions, describe how we implemented and tailored a mixed mode survey to our research problem, and report on its consequences for the resulting data quality.

Data Collection Modes for Sensitive Questions

Self-administered questionnaires have the advantage that the respondent is the 'locus of control' of the question-answer process and the absence of an interviewer may evoke a greater sense of privacy than surveys that involve interviewing, thereby leading to more openness (Sudman and Bradburn, 1974; Tourangeau and Smith, 1996). Empirical studies strongly support this view and point to increased levels of reporting sensitive information in self-administered modes. Many mode comparisons have shown that compared to interviews, self-administered questionnaires produce less underreporting of sensitive behavior and less social desirable answers in general. These findings hold for a variety of sensitive topics, such as health (e.g., Hochstim, 1967; Siemiatycki, 1979), mental health (Hinkle and King, 1978; Moum, 1998; Van Amstel, 1981), abortion (Lessler and O'Reilly, 1997), drinking (Mangione, Hingson and Barrett,1982) and drug use (Aquilino, 1994, Gfroerer and Hughes, 1992; Tourangeau and Smith, 1996; Turner, Lessler and Devore, 1992). For a meta-analysis of data quality in self-administered questionnaires and interview surveys, see De Leeuw (1992); for a meta-analysis on social desirability in psychological questionnaires and interviews see Richman et al., (1999); for a meta-analysis on reporting of alcohol and drug use in surveys, see Tourangeau and Yan (2007).

Still, the absence of an interviewer when using self-administered questionnaires has disadvantages too (for an overview of data collection methods and advantages and disadvantages, see De Leeuw, 2008). Interviewers can be trained to convince potential respondents to cooperate and so reduce non-response (e.g., Groves and Couper, 1998; Stoop, 2005), and in general interview surveys have a higher response rate than self-administered mail surveys (Hox and De Leeuw, 1994) and websurveys (Lozar Manfreda et al., 2008). Furthermore, interviewers can assist when respondents have difficulties with understanding questions or reading the questionnaire (e.g., De Leeuw, Hox, Kef, 2003). In her evaluation of modes of data collection for health studies, Bowling (2005) concluded that face-to-face interviews may ease the cognitive burden for the respondent, but also may lead to more social desirability and less willingness to disclose sensitive information. Bowling (2005) also pointed out, that the opposite may be concluded for self-administered questionnaires.

When sensitive topics are being surveyed a face-to-face interview should be preferred above a telephone interview, because in a face-to-face situation interviewers have more means to establish trust and reassure respondents than over the phone. There is clear empirical evidence that telephone interviews are less effective than telephone interviews to elicit sensitive information; for a meta-analysis that summarizes empirical comparisons between telephone and face-to-face surveys, see De Leeuw and Vander Zouwen (1988). That telephone interviews result in more social desirability than face-to-face interviews is also confirmed by a later study by Holbrook, Green, and Krosnick (2003).

Recently, mixed-mode studies have become increasingly popular (e.g. Blyth, 2008). In mixed-mode surveys the researcher attempts to combine two or more different data collection modes in such a way that weak points of individual data collection methods are compensated by the strong points of other modes. Still the implementation and analysis of mixed-mode surveys have many challenges (for an overview, see de Leeuw, 2005).

The study described here on domestic violence on Curaçao is a clear example of the need for a mixed-mode approach. Because of the highly sensitive nature of the topic, a self-administered

approach would be the first choice, as self-administration reduces underreporting of sensitive information. However, social scientists in the Caribbean face different challenges than social scientists in Western countries. For example, there is a less developed 'reading culture', amplified by higher illiteracy and semi-literacy rates. Illiteracy rates are around 1% in Western countries and range from around 4% (Bahamas and Netherlands Antilles) to around 39% (Haiti) in the Caribbean (United States Agency for International Development & Colin, 2010). This complicates the use of self-administered questionnaires, and often interviewer-assistance is needed to help respondents with the questionnaire. To face the many challenges of both this special population and the highly sensitive topic, we designed a tailored mixed-mode approach, which is described and evaluated in the next sections.

A tailored mixed-mode design

Challenge 1: Sampling and inviting potential respondents

Curaçao is an island in the Dutch Caribbean, with 140.000 inhabitants, descending from African, Dutch, Jewish, Arabic and recent Spanish Caribbean ancestors. The population for this study was defined as the adult (18+) Papiamentu or Dutch speaking inhabitants of Curaçao. Institutionalized people (e.g. prison, mental hospital, etc.) were excluded and language was an explicit inclusion criterion; only people who had an adequate command of Papiamentu or Dutch could participate. Papiamentu and Dutch are the most common spoken languages in the households of 91% of the Curaçao population (Centraal Bureau voor de Statistiek & Boer, 2004).

Instead of approaching the potential respondents at their home based on a register sample, we chose a 'waiting area intercept'-approach. In an intercept survey, potential respondents are approached by a recruiter or interviewer (intercepted) and invited to participate (Diamond, 1994). This choice for waiting area intercept sampling had several reasons. First, approaching people at home for scientific research is not general practice in Curaçao. An interviewer at the doorstep or a letter inviting to complete a questionnaire is not common and may therefore give rise to distrust in or misinterpretation of the motives of the researcher. This could lead to a high non-response and even affect data quality. Second, domestic violence is per definition linked to the household, and asking questions on this topic in a household setting could lead to unwanted reactions, which affect response propensity and data quality. For instance, other members of the household could act as protectors or 'gatekeepers' and deny access to the house. Also the presence of other household members during the interview, which is almost unavoidable living in open family compounds or in small dwellings, would threaten the privacy of the respondent and could lead to strong underreporting of domestic violence. Finally, it could be extra painful and intrusive to talk about violence at the place where it occurred, with eventually a perpetrator around, causing unnecessary stress to the respondent which is against research ethics.

Four major public waiting rooms on Curaçao served as waiting-area-intercept location: (1) the governmental registry office, (2) the biggest local health insurance company, (3) a governmental food handling permit distribution unit, and (4) a medical facility. These four locations are regularly visited by people from all social strata, and waiting times are -in general- at least an hour, which gives ample time to complete the questionnaire. People in the waiting rooms were approached by a trained interviewer-recruiter with the request to participate in a local survey of the Medical and Public Health service. Also, a researcher of the Public Health Research Unit was present at the location. A small incentive, a fabric wallet or a key chain, was offered for completing the questionnaire. Data collection took place in 2009 during two full months.

This approach was successful. Nine out of ten of the approached persons agreed to cooperate (91%), which resulted in 816 completed questionnaires. For more details see Van Wijk (2009a).

Challenge 2: Mode of data collection

Data collection took place in neutral surroundings, that is, a waiting room. But also the data collection method itself should offer as much privacy as possible. From the literature review above follows that a self-administered questionnaire is the best choice. However, due to the relative higher percentage of illiterates and semi illiterates in Curaçao, in some cases problems with self-administered questionnaires are to be expected. An advanced technical solution would be to use A-CASI, audio-computer assisted interviewing. In A-CASI a personal computer is used to administer the questionnaire and the respondents listens to a synchronized recording of the questions over a head-set, while at the same time the questions appear at the screen. This overcomes reading problems and ensures the privacy of the respondent (cf. De Leeuw et al., 2003). In recent versions of A-CASI a touch screen may be used so respondents only have to point to their chosen answer instead of typing. For an overview of computer assisted methods and sensitive questions, see Turner et al., (1998). However, A-CASI needs a large investment in hard and software, and due to financial restrictions this was not an option.

To solve the literacy problem we opted for a mixed-mode approach, in which respondents were offered the choice between a paper self-administered questionnaire and a face-to-face interview, so that each respondent could decide to participate in the mode that made him/her feel most comfortable. Four experienced interviewers were specially trained for this field situation. The training went beyond basic interview modules (e.g., background of project, topics in questionnaire, question-answer process, delivering question, noting down answers) and had special modules on how to approach respondents in the waiting area, on the best ways to offer the choice between the self-administered questionnaire and the interview, and on how to interview respondents on sensitive topics. The interviewers also received instructions on logistics and administration (e.g., collect and safely store the completed questionnaires, report the number of refusals).

Offering a choice of mode resulted in 816 completed questionnaires, of which the majority (76%) consisted of self-administered questionnaires and 24% were the result of face-to-face interviews. There was no difference in gender regarding the choice of method; the distribution of interviews and questionnaire over the total group of respondents was the same for men and women. The distribution by age and education was less balanced; people over 50 and people with low education had a stronger preference for the interview. For more details see Van Wijk (2009a).

Logistic regression shows that education has a stronger effect on respondents choice for a particular methods than age: $\chi^2(3)= 61.4$, $p<.001$; $B_{education}=-.49$, $p<.001$, $B_{age}=0.01$, $p<.05$; see also Figure 6.1.

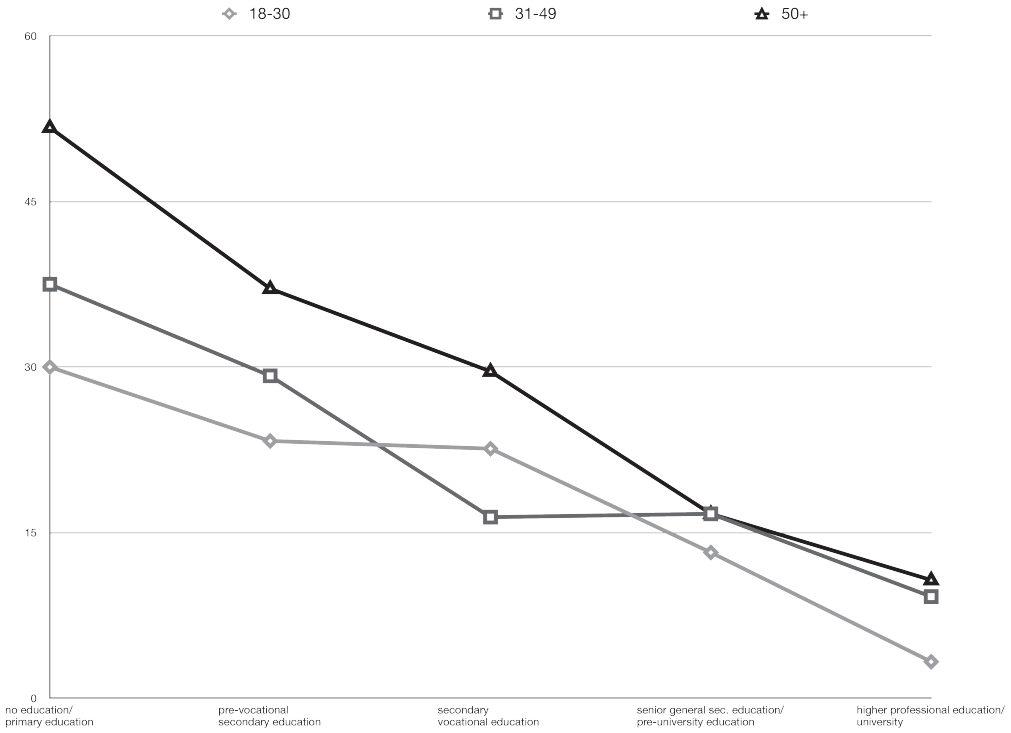

Figure 6.1: Percentage Face-to-Face questionnaires, by age and level of education (n=816)

Our study clearly shows that respondents from different demographic segments have different preferences. Overall, almost a quarter of our respondents chose a face-to-face interview, while for the segment of low educated, elderly people, the interview option was chosen by over half of the respondents. This supports our expectations that a mixed mode approach pulls in those respondents that we would have missed if we restricted ourselves to a single mode approach. Not only does this tailored mixed-mode strategy leads to higher number of completed questionnaires, it also restores partly the non-response bias by pulling in more lower educated and elderly, groups that are in general underrepresented (e.g., Dillman, 1978; Goyder, 1987, Groves and Couper, 1998). In this sense, our tailored mixed-mode strategy was successful.

Challenge 3: Questionnaire construction

A mixed-mode strategy poses challenges to the questionnaire construction; differences in question wording and format between modes is a source of potential differences across survey modes (see Dillman et al., 2009 p. 321). This may threaten data integrity when data from different modes are combined into one analysis (cf. De Leeuw, 2005). To avoid unwanted question format effects threatening the internal validity of mixed-mode studies, Dillman (2000, 2007) proposed the unified or uni-mode design: designing questions and questionnaires to provide the same stimulus to all respondents independent of mode. Dillman (2000, 2007: p.232-240) outlines several principles to construct unified mode questionnaire. These include making response options the same across modes and using the same descriptive labels for response categories across modes. These principles were followed during questionnaire construction.

A standardized questionnaire was based on scientific literature on domestic violence and similar questionnaires about health topics and domestic violence (Straus et al., 1996, Lünneman en Bruinsma, 2005; Van Dijk e.a., 1997; Bos en Van Zanden, 2004; Goderie en ter Woerds, 2005; GGD Amsterdam, 2008). The questionnaire was available in Papiamentu and Dutch, and

included questions on the following topics: (1) Demographics, (2) Health status, (3) Psychological Distress, (4) Loneliness, (5) Specific experience with domestic violence, as a victim, (6) Specific experience with domestic violence, as an adult perpetrator, and (7) Emotions experienced while undergoing or committing domestic violence. Experiences with domestic violence were subdivided in psychological, physical and sexual violence.

Most questions, including health status questions and multi-item scales for measuring psychological distress and loneliness, have been applied earlier in both face-to-face and self-administered modes, and had a uni-mode format. The questions on experience with domestic violence were adapted to fit the multi-mode approach. When in a self-administered questionnaire a question is left unanswered, it is often difficult to distinguish between 'no, not applicable' and an explicit 'non-response/refusal' (cf. Smyth et al., 2008). Therefore, we added a specific 'no never' response category to the questions where this was needed, such as, questions on experiences with domestic violence as a victim.
The questionnaire also contained questions about domestic violence as an adult perpetrator. These questions are very sensitive and answering these truthfully may be even more threatening than questions on having been a victim. Therefore, the response category 'I'd rather not answer this question' was added to the 'yes' and 'no' options. A detailed description of the questionnaire, including details on scoring and psychometric properties of multi-item scales can be found in Van Wijk (2009b).

Final challenge: Data quality and different modes

We were successful in implementing a tailored mixed-mode strategy with regards to overall response. We were also successful in collecting data from traditionally hard to reach groups, like elderly and low educated persons. But how did our mixed-mode approach affect the resulting data quality? In this last section, we describe how we investigated data quality and discuss our major findings.

Indicators of data quality

Response validity, in which the answer is checked against the 'true' value, for instance, as found in official records or other external information, is often seen as the golden standard for evaluating data quality. Examples of these validity checks are studies in which self-reports about illicit drug use are compared with the results from urinalyses (cf. Tourangeau and Yan, 2007) or studies in which telephone and web interviews on study behaviors are compared with the records of the university (Krauter et al., 2008). In the absence of validating information, underreporting of socially undesirable behaviors (e.g., drug use, smoking, abortion, and criminal behavior) is seen as an indicator of lower quality (for an overview, see Tourangeau et al., 2000). The real prevalence of domestic violence on Curaçao is not known, so there is no external validation information available. Domestic violence is a prime example of sensitive and undesirable behavior; we therefore focus on underreporting of events. In other words, higher scores for both victim and perpetrator incidences are assumed to be the more valid, when comparing results of self-administered questionnaires and face-to-face interviews.

Analysis method

Respondents were offered the choice between a self-administered or an interviewer administered questionnaire. The main reason for this mixed-mode design was the level of (semi) illiteracy in our population, and we did find that elderly and lower educated people more often chose the interview mode. On the one hand, this is exactly the reason to choose a mixed-mode approach: attract those respondents that would otherwise be lost. On the other hand, when comparing results this leads to a confounding of the effects of data collection mode and demographics.

Therefore, in all our mode comparison we controlled statistically for differences in background characteristic of respondents between modes to correct this.

Logistic regression was used to analyze the data. Dependent variables were prevalence/ victimization, severity of experienced violence, and perpetrating violence on a variety of indicators. We distinguished between psychological (e.g., humiliate), physical (e.g., push, hit), and sexual (e.g., threats, assault, rape) violence. Furthermore for victimization, we distinguished between victimization as a child, and victimization as an adult (less than a year ago, more than a year ago, and in total); for a detailed description, see Van Wijk (2009b).
To control for differences in demographic variables, the variables gender, age, and level of education were always entered as the first block in the regression model. In a second block the chosen mode of data collection was added, which enabled us to investigate the effect of mode on reported prevalence. Finally to explore potential interactions of mode with background characteristics, two-way interactions of mode with gender, mode with age, and mode with education were added in a third block.

Prevalence of domestic violence: Being a victim

In general we did not find any statistically significant mode effects for experiences with violence as an adult, with the exception of sexual threats experienced as an adult more than a year ago. We did find some effects for experience with violence as a child. Table 6.1 gives an overview of only those logistic regressions that showed statistically significant results.

Table 6.1: Victimization as a Child, Psychological, Physical, or Sexual: Results of Logistic Regression Analysis

Type of Victimization	Block	Sig.	Sex	Age	Edu	Mode	Sex* mode	Age* mode	Edu* mode
Psychological Child n=789									
Humiliating/ hurting/ remarks									
	Block1	p<.05		-.02**					
	Block2	ns							
	Block3	p<.05				3.3*		-.04*	
Physical Child n=741									
Hit with objects, cut, burn									
	Block1	p<.001		-.03***					
	Block2	ns							
	Block3	p<.001			1.5***	3.7**			-1.3***
Sexual Child n=742									
Sexual assault									
	Block1	p<.001	1.8**	-.04**					
	Block2	p<.05	1.8**	-.04**		-1.3*			
	Block3	ns							

** p< .05; ** p< .01, *** p<.001*

We found no statistically significant differences between the modes in reported experiences with *psychological violence* as an adult. But, for victimization as a child we did find effects for humiliation. More humiliation as a child is reported in the self-administered questionnaire for persons older than 30, while younger persons report more humiliation as a child in the face-to-face interview. No significant effects were found for other indicators of experienced psychological violence (e.g. restrict contact, or restrict freedom in various forms) as adult or as child.

When we look at *physical violence*, again only statistically significant effects are found for childhood experience, and than only for the most severe forms of violence (hitting, cutting, burning). Higher educated persons report more experienced extreme physical violence in the self-administered questionnaire, while both modes produce the same results for lower educated persons. No statistically significant differences were found for lesser forms of physical violence (e.g., push, confine). Also no significant effects were found for any experiences as an adult.

Finally when we look into reported *sexual violence as a child*, we see a clear mode effect for the more extreme sexual violence with more sexual assaults (e.g., rape) reported in the self-administered mode. There were no statistically significant differences for lighter forms of sexual violence, such as sexual threats or being exposed to an exhibitionist. Again, no differences were found for victimization experiences as an adult, with the exception of being exposed to sexual threats more than a year ago. Higher educated respondents reported more sexual violence in the self-administered mode, while people with no education reported more sexual violence in the face-to-face mode (see Table 6.2). Severe forms of sexual victimization did not show any significant differences, nor did questions about adult victimization experienced less than a year ago.

Table 6.2: Victimization as Adult: Results of Logistic Regression Analysis. Victim of Sexual Violence more than a year ago

Type Victimization	*Block*	*Sig.*	*Sex*	*Age*	*Edu*	*Mode*	*Sex* mode*	*Age* mode*	*Edu* mode*
Sexual Adult, more than year ago n=740									
Sexual threats									
	Block1	p<.001	2.3**						
	Block2	ns							
	Block3	p<.05			1.4				-1.3*

** p< .05; ** p< .01, *** p<.001*

Besides occurrence of victimization, we also looked into the severity of the violence one was exposed to (see Straus, 2001). Answers were recoded into a dichotomous score 'minor only vs. severe (Strauss et al., 1996). Again we used logistic regression, correcting for respondent differences in background variables between the modes.

No significant mode effects were found for severity of experienced psychological, physical, and sexual violence experiences as an adult or as a child.

Prevalence of domestic violence: Being a perpetrator

We also asked whether respondents had inflicted psychological, physical, or sexual violence as an adult. Response options were 'yes', 'no', and 'I'd rather not answer this question.' With very sensitive questions, evading or dodging an answer can be seen as admittance (cf. De Jong Gierveld & Kamphuis, 1985). Therefore, we combined the answers 'Yes' and 'I rather not answer' into one category 'Yes/Maybe'[1].

We did not find any statistically significant mode differences for questions on humiliating others, hitting or kicking others, or sexual touching. However we did find statistical significant results

[1] We also reanalyzed the data with 'I'd rather not answer' recoded into missing, thereby only focusing on yes vs. no. The same tendencies were found.

for all other questions on inflicting domestic violence in the psychological, physical, and sexual domain. For an overview of significant results, see Table 6.3.

There was a clear effect of mode on admitting sexual threats with more yes/maybe answers in the self-administered mode. There were also some interesting effects of age and gender with mode. There was more admittance in the self-administered mode of uttering hurting remarks, threatening with and actually inflicting physical violence by respondent aged 30+, while younger respondents admitted this more in the face-to-face situation. Men also had the tendency to admit this more in the self-administered mode, although this interaction was only significant for threats of physical violence.

Table 6.3: Inflicting Domestic Violence as an Adult. Results of Logistic Regression Analysis. Perpetrating Psychological, Physical, or Sexual Violence

Perpetrator 'Yes/may be' vs' No'	*Block*		*Sex*	*Age*	*Edu*	*Mode*	*Sex* mode*	*Age* mode*	*Edu* mode*
Psychological hurting remarks n=755									
	Block 1	p<.001		.02**	-.2**				
	Block 2	p<.05		.02**	-.2**	.4*			
	Block 3	p<.01		-.04**		-2.1*		.05**	
Physical threatening n=751									
	Block 1	ns							
	Block 2	p<.01				.7*			
	Block 3	p<.05					-1.3*	.04*	
Physical hitting or kicking n=752									
	Block 1	p<.01		.03**					
	Block 2	ns		.03**		.5			
	Block 3	p<.05					-1.2	.06*	
Other physical violence n=747									
	Block 1	ns							
	Block 2	ns		.01		.5			
	Block 3	p<.05	1.5*	-.05			-1.1	.05*	
Threat sexual assault n=747									
	Block 1	ns							
	Block 2	p<.01				2.1*			
	Block 3	ns							

** p< .05; ** p< .01, *** p<.001*

Conclusion and Discussion

We implemented a tailored mixed-mode design to accommodate the special needs of a survey on domestic violence in the Caribbean. To overcome problems with (semi) illiteracy, we offered respondents the choice between a self-administered questionnaire and an interview with a specially trained interviewer. All potential respondents were approached personally, and we were able to achieve high response rates. We were also able to reach those people who are usually underrepresented in surveys by opting for a mixed-mode strategy. In our study we found that different demographic segments have different preferences. High educated and young people

had a strong preference for self administered questionnaires. In total almost a quarter of the respondents chose a face-to-face interview, but for the segment of low educated, elderly people, the interview option was chosen by over half of the respondents

These findings support our initial hypothesis that a tailored mixed mode design accommodates different respondent preferences, facilitates higher response rates and gets in the hard-to-reach respondents. The amount of effort needed to fill in a self-administered questionnaire may often be too high for low educated, elderly people. Low literary rates and poor eyesight, both more common among the elderly than among young people in the Caribbean, may contribute to this. Depending on population characteristics, using a tailored mixed mode design may be essential to ensure that all types of respondents are able to participate.
Non-response and mode/measurement error are important sources of survey error (cf. Groves, 1989). In a mixed-mode design the researcher tries to balance costs and survey errors in an optimal way (cf. De Leeuw, 2005). Our mixed-mode strategy was successful in reducing selective non-response. But, how about mode effects on the measurement? May we combine the data collected through different modes or are there large mode effects?

In general, we did find surprisingly few mode effects. Off all statistical analyses preformed, almost 90% did **not** show a statistically significant result at the five percent level. There was one clear mode effect on victimization for the more extreme sexual violence with more sexual assaults (e.g., rape) reported in the self-administered mode. There were also some interesting interaction effects. But, overall, mode effects were small.

Consistent with most previous research, social desirability bias through underreporting seems to be somewhat smaller in self-administered mode for some topics: sexual violence in childhood were reported more often in the self-administered-mode and questions about perpetrating sexual violence (threats), were denied more often in the face-to-face-mode.

There were some statistically significant interactions of education with mode and age with mode. In two cases, we found that higher educated respondents were more open in the self-administered mode (i.e., more reporting of being hit, cut, or burned as a child, more reporting of having been exposed to sexual threats as an adult), while the opposite was true for low educated respondents. Of course we should be very cautious in interpreting these interaction effects, as capitalization on chance may be the case. However, this could point to a differential level of sensitivity of topic for different groups.

We also found that young people more candidly admitted having been a victim (i.e. reported being more humiliated as a child) in the face-to-face mode. This effect was even stronger regarding questions on inflicting violence (i.e., making hurting remarks, uttering physical threats, kicking, and other physical violence, and uttering sexual threats). It could be that admitting this behavior is less sensitive for younger than for older people (cf. Lensvelt-Mulders, 2008), again pointing to differential levels of sensitivity for different groups. It could also point to 'boisterous' behavior and erroneous over reporting (cf. Brewer, 1981). Finally, it could be seen as a compliment to the well-trained interviewers. Although a majority of the young respondents chose the self-administered mode, perhaps the feeling of being listened to by a trustworthy and emphatic interviewer, turned out to be more encouraging than filling in a questionnaire. Still, we have to be very careful with interpreting this results and more research and replication of these findings is needed.

The results of our study clearly support the use of a tailored mixed mode design, but caution is recommended: meeting respondent preferences may not always lead to the most valid results. Looking at the relationship between mode preference and educational level, meeting respondent preferences seems to be only beneficial: high educated population segments tend to choose the self-administered mode and are also much more honest in this mode, while low educated respondents more often chose a face-to-face interview and also gave more valid answers in

the interview mode. However, the opposite goes when the relationship between age and mode preference is examined: although elderly people more often chose an interview, they tend to give somewhat less socially desirable answers in a self-administered questionnaires for a small number of topics. Young people on the other hand have a tendency to choose the self-administration mode, but report more undesirable behavior in an interview.

An explanation for this phenomenon could be that mode preferences are mostly influenced by respondents' abilities. Perhaps elderly people chose an interview not because they feel more comfortable with a human interviewer, but because they are unable to fill in a questionnaire by themselves. But, further research into effects of survey mode on data quality in the Caribbean is necessary, preferably with modes that accommodate both low literacy, as well as preferences for humanlike interactions, like audio enhanced computer assisted self-interviewing (A-CASI). Also, when respondent mode preferences are being studied, more knowledge about *why* a certain mode is preferred, could lead to more optimal data administration strategies.

Finally, it should be noted that we found few and small mode differences. As such, this is good news. But we also took extreme care to make the questionnaires in both modes equivalent, and trained our interviewers specially in approaching respondents and in asking sensitive questions. With a less strictly tailored design, or with questionnaires that are not completely equivalent (cf. Dillman, 2000), larger differences may occur. We therefore advice extreme care in designing a mixed-mode study, and crafting a questionnaire for a mixed-mode approach.

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7. Conclusions

Reliable statistical data on the prevalence, risk factors, and consequences of domestic violence in the Caribbean are largely unavailable. Several (non-) governmental organizations put this on their agenda. In 2007 the United Nations Office on Drugs and Crime (UNODC) earmarked regular, periodic and standardized victimization surveys that permit the comparison of crime levels both across countries and over time, to enable evidence based policymaking on domestic violence as a priority (UNODC, 2007). The Global Movement for Children (GMfC, 2009) has also indicated the need for improved data collection and information systems on this topic, in the context of a national research agenda and with agreed international indicators, and with particular reference to vulnerable subgroups. The Organization of American States and the Inter-American Commission of Women (Chin, 2001) point out the urgent need for systematic collection of data, disaggregated by gender and by age, on the incidence of violence in the Caribbean.

Given the variety of the Caribbean, it would be presumptuous to assume that the data in this dissertation could be generalized to other islands in the region. Still, it is one of the first steps in filling in an almost empty Caribbean picture.

Prevalence

Almost half of our sample of 816 respondents (39% of men, 51% of women) on Curaçao have experienced some form of domestic violence at some point in their lives. Figure 7.1 demonstrates the lifetime prevalence of the three types and combinations of domestic violence. The prevalence difference between men and women is the largest for sexual violence and for multiple victimization.

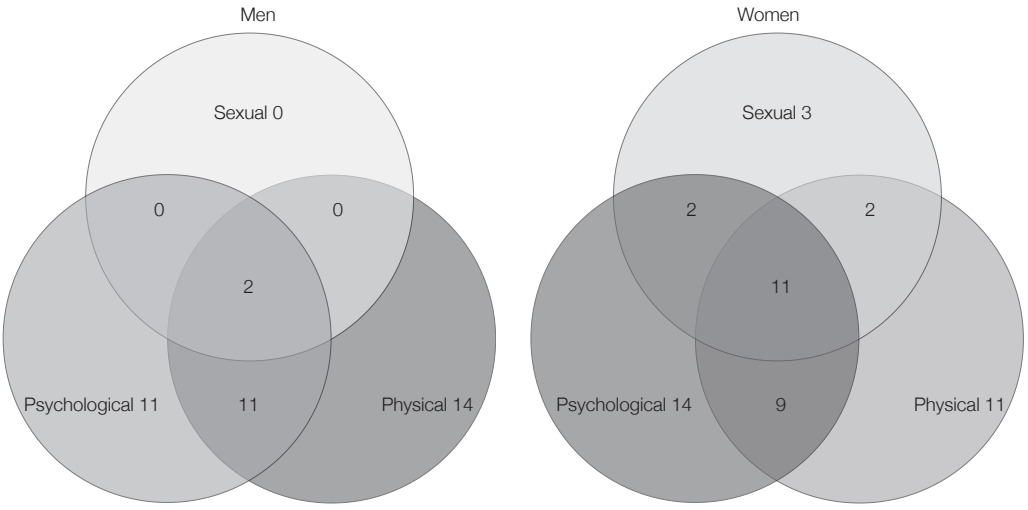

Figure 7.1: lifetime victimization rates (total rates: men 39%, women 51%)

We note that the sample is not entirely representative; the elderly were somewhat underrepresented. This could affect the accuracy of the prevalence estimates, which can be corrected by adjusting the estimates with a post stratification weight. But there are indications that more underreporting may have occurred at measuring the lifetime victimization of the elderly. A young age is well-known risk factor for domestic violence victimization, but since the questions referred to domestic violence experiences in one's entire life and the elder respondents have all been young, we did not expect them to have lower lifetime prevalences, barring some underreporting attributable to memory effects. Because these memory effects may indeed have affected the prevalence rates of the elderly (the reported lifetime prevalences were lower for this group), we decided not to adjust the lifetime prevalence rates with a post stratification weight[1].

To estimate the yearly prevalences, we did adjust the sample estimates with a post stratification weight, because memory effects should not affect the rates of violence victimization in the year preceding the study, as much as the lifetime prevalences. The prevalences within demographic segments (defined by age and gender) are projected on the population, resulting in an estimate of approximately 5000 adult men and 9.500 adult women to be victimized per year in Curaçao (see Table 7.1).

Table 7.1: estimated number of victims per year (rounded) by gender and type of violence[2]

	psychological	physical	sexual	any
Men	4400	1900	300	5000
Women	8900	3700	1500	9500

Does the prevalence of domestic violence on Curaçao deviate from other countries in the region or some Western countries? Although it may be remarkable for some advocate groups, the answer is no. Compared to other countries for which statistics on domestic violence against adults are available, Curaçao seems to have an 'average' prevalence of domestic violence victimization (see Figure 7.2).

[1] if a post stratification weight is used, the lifetime prevalence estimates are zero to three percent lower, depending on the type of violence: the adjusted lifetime prevalence rates per type of violence are: psychological 25% of men, 36% of women, physical 25% of men, 31% of women, sexual 2% of men, 15% of women

[2] The raw not (rounded) sample adjusted yearly victimization estimates are: psychological 4351 men, 8862 women, physical 1889 men, 3706 women, sexual 279 men, 1502 of women, any domestic violence 5019 men, 9540 women

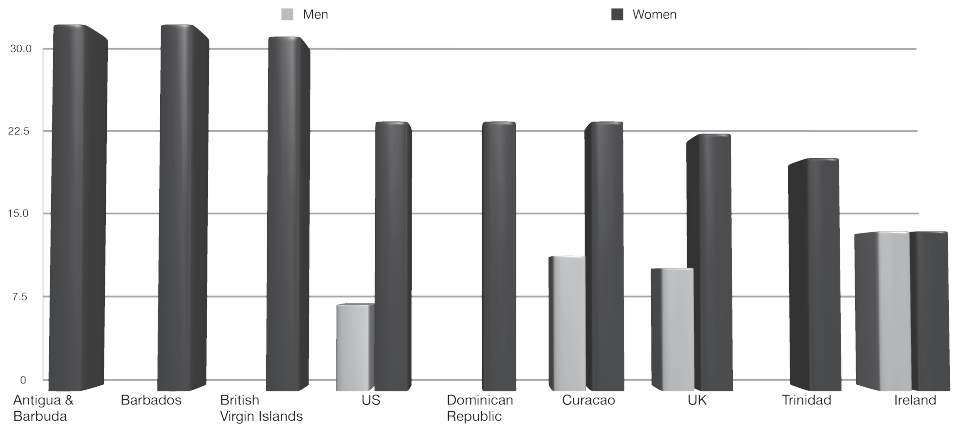

Figure 7.2: Victimization rates for physical domestic violence of adults, by gender[1]

Unlike in most other (Western) countries, the majority of the Curaçao victims of physical domestic violence have experienced severe forms of abuse, like being hit with objects. Parents are the main perpetrators of domestic violence against children (except for sexual violence, which is for the most part perpetrated by family members and friends). Consistent with current literature on the subject, domestic violence against females is for the most part (ex-) partner violence. Men on the other hand rarely experience physical (ex-) partner violence; parents, family and friends are the most common perpetrators of violence against adult men.

What is remarkable is that our respondents report that even after reaching adulthood, parents are responsible for a large proportion of psychological violence, of humiliating and controlling of their children. The prevalence of parental perpetration of psychological violence against their male and female adult children is similarly high as the prevalence of psychological violence between (ex-) partners. This finding may be attributable to the fact that family structures in the Caribbean are often characterized by extended families in (grand) mother-dominated households. Several generations live in the same house, or in houses built close to each other on the same compound, sharing resources. Most young people cannot economically afford living on their own and many women have children at a young age, before a (semi)permanent relationship with the father of the child has been built. The young mother and her baby stay in the house of her parents or mother, or with other relatives then, often leaving little or no role for the young father (Seegobin, 2002, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2010). Adult brothers may also still be living in the house they were raised in, and might have offspring elsewhere.

The island of Curaçao is geographically small (444 km^2, 200 $miles^2$) and not very densely populated, so family will always be close or easy to reach. Therefore parents can easily stay involved in the lives of their adult children and grandchildren, even if the adult children move out of their parent's neighborhood.

[1] Heise et al., 1994, WHO 2006, Tjaden et al., 2000, Kershaw, 2001, Watson, 2005

Risk factors

In this research, the following risk factors for domestic violence victimization are investigated: gender, age, education, presence of children, single parenthood, divorce, childhood domestic violence victimization, drinking frequency, typical number of drinks, working status and type of health insurance (proxy for SES) (see Chapter 2).

The data in this study show that the most significant risk factors for domestic violence victimization on Curaçao are the female gender, a young age, low education and domestic violence victimization in childhood. Divorce, single parenthood and unemployment increase the risk for women, but not for men.

Gender differences

Compared to men, adult women are 1.6 times as likely to experience psychological violence, two times as likely to experience physical violence and nine times as likely to experience sexual violence. This is consistent with findings in the US (NVAWS, 1998) and the UK (BCS, 2001).

The mechanisms that increase the risk for domestic violence victimization are not identical for men and women. For men, a young age, low education and psychological abuse in childhood is associated with a higher risk of domestic violence victimization as an adult. In particular, the prevalence of psychological violence against adult men is threefold for those who were psychologically abused as children, compared to men who were not. Physical domestic violence victimization is reported by one out of ten adult men. Higher prevalences are associated with a young age and with more than average drinking habits.

Like for men, a young age and a low education are associated with higher domestic violence victimization prevalences for women too. Especially for young women, a higher education seems to be a protective factor for domestic violence. But the risk of female adult victimization increases with any type of domestic violence victimization in childhood. Sexual violence is the most damaging type of childhood victimization in terms of risk increase: it is associated with a higher prevalence of all types of domestic violence in adulthood. The prevalence of psychological and physical violence is 2.5 times as high for women who have been sexually abused as girls, and the prevalence of sexual violence is over five times as high, compared to women who have not been abused as a child.

Consistent with current international literature, we found in our research on Curaçao a much higher prevalence of physical domestic violence victimization for divorced women and for women who are single parents, especially if there are many children in the household[1]. The percentages of victims range from 14% of married/cohabiting women, to 24% of single women and widows, and 38% of divorced women. This may be explained by the fact that domestic violence rates spike during separation (Kropp, 2002), but there are also indications that denial rates are higher among couples who are still together, which may also contribute to the higher victimization estimates for divorced women. For single women, the prevalence increases with the number of children in the household from 23% to 62%[2]. A steady job seems to offer some protection against psychological violence: 31% of women with a steady job and 42% of the women without a job or occasionally working women report being psychologically abused as adults.

[1] The number of children in the household was asked in the questionnaire, not the number of children of the respondent

[2] from 1 child till 6 children or more

Perpetrating domestic violence

The prevalence of perpetrating domestic violence is usually not measured in national crime surveys, but has been studied extensively in family conflict surveys and occasionally with national representative studies. These studies typically find equal domestic violence perpetrating prevalences for men and women: violence is perpetrated against a partner in 50% of marriages and 25% of dating couples.

Like in most other, mostly Western, studies on this subject, the most striking finding in this part of our research is the virtual *absence* of gender differences in both the prevalence of perpetratorship, as well as for the factors that seem to influence the probability of being a perpetrator of domestic violence (see Chapter 4). A quarter of the respondents have committed psychological domestic violence. Physical violence was perpetrated by 11%-17% of the respondents and sexual violence by 1%-6% of the respondents. These findings are comparable to those of Van der Knaap et al., (2010) in a nationally representative Dutch sample.

Curaçao is a collectivist country, which is associated with higher male perpetration rates, with a matrifocal orientation and high gender empowerment, which is associated with gender similarity in perpetration rates. Since we found gender similarity in the perpetration rates on Curacao, we conclude that the influence of gender empowerment seems to be more decisive than the collectivistic/individualistic society dimension. Nevertheless we should interpret these results with caution, since we have measured domestic violence perpetration rates and not intimate partner violence perpetration rates. It is still very well possible that intimate partner violence is more often perpetrated by men, and that women direct their aggression more towards other family members, like children.

The antecedents of domestic violence perpetration in Curaçao are very much like those found in other countries: domestic violence victimization increases the probability to become a perpetrator for both sexes, especially severe physical violence victimization. Respondents who have suffered the most severe forms of physical violence in childhood, have the highest probabilities to become an adult perpetrator of physical and psychological violence (men and women) and a perpetrator of sexual violence (men). Male sexual domestic violence perpetratorship is also strongly associated with being teased and humiliated in childhood.

Other factors that influence the probability to perpetrate domestic violence are the number of children in the household of the victim and the level of education of the perpetrator: physical domestic violence is perpetrated more often by respondents with many children in the household, and psychological domestic violence is perpetrated more often by higher educated respondents.

Consequences on health care use and need

Consistent with the current international literature, we found a strong association between different forms of abuse and long term negative healthcare outcomes (see Chapter 5). All types of violence: psychological, physical and sexual affect the victim's health and consequently their use of healthcare services: domestic violence victims have lower scores on self assessed general health indicators and more illnesses in the year preceding the fieldwork period. More specific, domestic violence victims suffer especially more often from migraine, weight problems, blood circulation problems (high blood pressure) and skin problems. These problems affect health care use: domestic violence victims make more use of mental health services, social work, sleeping medication and antidepressants, compared to non-victims.

In this study, the higher number of health problems in the past year is significant for both male and female domestic violence victims, but the greater use of health care services is only

significant for female victims. This may be partly attributable to the smaller number of men in the sample, the smaller prevalence of male domestic violence victimization, and the smaller amount of male health problems and health care use, resulting in less statistical power to detect significant relationships.

All types of domestic violence victims in our research use, on average, more health care than non-victims, but different types of victimization are associated with different types of health problems and health care use.

Methodological issues

Causality is an important issue, in particular when studying risk factors. Especially in a cross-sectional design survey, association between variables alone is not enough to assume causality. Special circumstances that make a stronger case for causation are proper time order (for example, the risk factor victimization in childhood, precedes victimization as an adult) , the use 'fixed' independent variables like gender, and confidence in the reliability of the respondents' retrospective reports, like experiences with domestic violence when they were growing up (Bachman & Schutt, 2003). The validity of retrospective reports by adults of their own adverse experiences in childhood has often been criticized but Hardt & Rutter (2004) showed that although there is a substantial rate of false negatives, false positive reports are probably rare. Some researchers have studied the influence of risk factors for domestic violence in prospective, cohort studies (Ehrensaft et al., 2003, Fergusson et al., 2008). The results of these studies support the findings in cross sectional research with often similar prevalences and risk factors.

Underreporting is a serious risk for sensitive subjects like perpetrating domestic violence. Underreporting causes the magnitude of the phenomenon to be underestimated, but different degrees of underreporting in various subgroups (for example, because the questionnaire is too difficult for some groups) is an even more serious problem as it may be a threat to the validity of identified risk factors. To solve this problem we opted for a mixed-mode approach.

Mixed mode design

A self-administered anonymous questionnaire (SAQ) was used in our pilot study (see Annex 2: Data Collecting) but the length and complexity of the questionnaire made it very difficult to participate for some respondents, especially the elderly and lower educated people. To tackle this problem, we designed a special mixed-mode survey to reduce selective non-response and stimulate open and honest answers: we have offered the respondents in the main study the choice to answer the questions in the questionnaire by means of a face-to-face (FtF) interview instead of the SAQ. Each respondent could personally decide with which way of participating in the research he or she felt most comfortable. This has contributed to a very high response rate of 91%.

We investigated whether demographic characteristics were related to mode choice, and found that different demographic segments of respondents have different mode preferences. For low educated and elderly people, a FtF interview was chosen over a self administered questionnaire (SAQ) by more than half of the respondents. Highly educated and young people on the other hand, had a strong preference for self administered questionnaires. This supports our hypothesis that a mixed mode design accommodates different respondent preferences and facilitates higher response rates. The amount of effort needed to fill in a SAQ seems often to be too high

for respondents that are low educated, elderly, or both. Low literary rates and poor eyesight, both more common among the elderly than among young people, may contribute to the above mentioned choice. Depending on demographic characteristics, using a mixed mode design may be essential to ensure all types of respondents are able to participate.

Data quality

With regard to consistency across the two survey modes FtF and SAQ, we found only small mode effects in this study. Consistent with most previous research (Tourangeau and Yan, 2007), social desirability bias seems to be somewhat smaller in SAQ-mode for some (more sensitive) topics, like sexual assault.

Like Sproull et al., (1996) and Booth-Kewley, Larson, and Miyoshi (2007) we found interaction affects for gender and survey mode. Men were, compared to women, more affected by the survey mode when questions were asked about threatening physical violence. Interaction effects for mode with age and education were also found: young people and low educated people seem to be more candid on some topics in FtF-mode, while higher educated and older people (30+) give less socially desirable, more valid answers in SAQ-mode.

Further research

An important limitation of the current study is the lack of information on the context of domestic violence victimization. Data on violence initiation, intention and motivation have not been collected, so prevalences and gender differences regarding 'common couple violence' versus 'intimate terrorism' (see Chapter 1) cannot be determined yet.

Furthermore, domestic violence in the form of stalking is not studied explicitly, although some types of psychological violence that overlap with stalking were included in the questionnaires, like 'being watched all the time'. It is recommended to investigate the prevalence of this type of domestic violence on Curaçao as well; living in a small, insular community may facilitate stalking. Domestic violence victimization in childhood has an enormous impact on both domestic violence victimization ànd perpetratorship in adulthood. Therefore, specific studies should be carried out to obtain more insight in the prevalence of domestic violence against children, and to identify the most vulnerable groups. Our estimates of the prevalence of domestic violence against children are based on the respondents' memories and may underestimate the magnitude of this problem.

To obtain a realistic and nuanced interpretation of all characteristics of domestic violence, inferences on the subject should preferably be made considering findings from both national crime surveys and family conflict studies, or with study designs that combine the strengths of both types of research: nationally representative samples (including men and women), and questionnaires that include all possible experiences of psychological, physical and sexual assaults by current and former partners, family and friends.

The results of this research support the use of a mixed mode design, but caution is recommended: meeting respondent preferences is likely to increase response rates, but may not always lead to the most valid results. Further research on the effects on data quality of different administration modes in Caribbean social sciences research is necessary, preferably with modes that accommodate both low literacy, as well as preferences for humanlike interactions, like audio- or video enhanced computer assisted self-interviewing (A-CASI and V-CASI). Also, when respondent mode preferences are being studied, more knowledge about why a certain mode is preferred, could lead to more optimal data administration strategies.

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Annex 1: Technical Report - Questionnaire Development and Operationalization

Questionnaire

We developed a standardized questionnaire, based on scientific literature on domestic violence and similar questionnaires about health topics and domestic violence (Straus et al., 1996, Lünneman en Bruinsma, 2005; Van Dijk e.a., 1997; Bos en Van Zanden, 2004; Goderie en ter Woerds, 2005; GGD Amsterdam, 2008). The questionnaire was available in Papiamentu and Dutch, and included the following topics:

Demographics

- Gender
- Age
- Level of education
  - no education/ primary education
  - prevocational secondary education / junior general secondary education (LBO, VSBO, MAVO)
  - senior secondary vocational education (SBO, MBO)
  - senior general secondary education / pre-university education (HAVO /VWO)
  - higher professional education / university (HBO, universiteit)
- Household size: number of children and number of adults
- Country of birth
- Civil state
  - Never married
  - Cohabiting
  - Married
  - Divorced
  - Widow(er)
  - Employment: number of working hours per week
  - Health insurance: There are various insurance schemes available in Curaçao. The most popular is the Social Insurance/Security Bank (SVB), which provides services for the private sector. It is a governmental organisation. SVB has a annual earning ceiling for eligibility. Individuals whose income exceeds it, seek coverage in private sector insurance. Civil servants have a separate insurance scheme under the name BZV. It covers employees of the public sector and their families. Furthermore, there is a government provided Pro-Pauper Insurance (PP) for the unemployed, poor and retired who lack insurance coverage. The association with PP serves as a good indicator of poor socio-economical status.

Health status

The health status of the respondents was measured in three components: self assessed general health status, specific health problems experienced and medical consumption. The items in this part of the questionnaire were taken from the Amsterdam Health Monitor (GGD Amsterdam, 2006):

- Self assessed general health status (SAH, 1 item). A five-point Likert scale was used to define SAH in five answer categories: bad, moderate, good, very good and excellent.
- Specific health problems experienced in the past 12 months. 9 dichotomous (yes/no) items were used: broken bones, migraine or severe headache, weight problems, sleep problems, abnormal appetite, menstrual problems, blood circulation problems, skin problems, problems with eyes/throat/nose/ears.

» Medical consumption. 8 dichotomous (yes/no) items were used: visited a general practitioner (during the past three months), visited a specialist, visited social work, visited a mental health professional, used policlinical care, used hospital care, used sedatives/tranquillizers, used antidepressants (all during the past year).

Kessler Psychological Distress Scale

To assess psychological distress, the Kessler Psychological Distress Scale (K10) was used. This scale consists of 10 items on a 5-point Likert scale, with the answer categories 'All of the time', 'Most of the time', 'Some of the time', 'A little of the time', 'None of the time '. Cronbach's Alpha was .89.

Table A1.1: Item-total Statistics for K10

During the past 30 days, about how often...	*Corr.Item Total Correlation*	*Alpha if item Deleted*
Did you feel tired out for no good reason?	0.54	0.88
Did you feel nervous?	0.63	0.88
Did you feel so nervous that nothing could calm you down?	0.65	0.88
Did you feel hopeless?	0.58	0.88
Did you feel restless or fidgety?	0.67	0.87
Did you feel so restless that you could not sit still?	0.63	0.88
Did you feel depressed?	0.72	0.87
Did you feel that everything was an effort?	0.58	0.88
Did you feel so sad that nothing could cheer you up?	0.68	0.87
Did you feel worthless?	0.64	0.88
Alpha		0.89

Loneliness scale

To assess loneliness, Jong Gierveld & Kamphuis' Loneliness scale was used (Jong Gierveld, J. de & F.H. Kamphuis (1985). . This scale consists of 11 items on a 3-point Likert scale, with the answer categories 'Yes', 'More or less', 'No'. Cronbach's Alpha was .87.

Table A1.2: Item-total Statistics for the loneliness scale

	Corr.Item Total Correlation	*Alpha if item Deleted*
There is always someone I can talk to about my day-to-day problems	0.42	0.87
I miss having a really close friend	0.62	0.85
I experience a general sense of emptiness	0.63	0.85
There are plenty of people I can lean on when I have problems	0.58	0.85
I miss the pleasure of the company of others	0.59	0.85
I find my circle of friends and acquaintances too limited	0.47	0.87
There are many people I can trust completely	0.59	0.85
There are enough people I feel close to	0.61	0.85
I miss having people around me	0.62	0.85
I often feel rejected	0.58	0.86
I can call on my friends whenever I need them	0.59	0.85
Alpha		0. 87

Alcohol use

Two items measured alcohol use; the first dealt with frequency, with the following answer categories: (almost) never, once a week or less, a couple of times a week, (almost) daily. The second question was about the usual quantity consumed (number of glasses).

Specific experience with domestic violence, as a victim

The items measuring experiences with domestic violence were taken from the Revised Conflict Tactics Scale (Straus et al., 1996) and from Goderie & Woerds (2005). A multi response structure was used to measure life course victim experience; for each of the items, the respondent could tick one or more answer categories: 'yes, as a child (<18)', 'yes, as an adult, over a year ago' and 'yes, as an adult, less than a year ago'. To distinguish non-response from non-victims, a 4th category 'no, never' was added.
Example of a victim question:

more than one answer possible

		As an adult		
NB only answer 'yes' if the perpetrator was a partner, friend or family member	Yes, as a child (< 18 years)	Yes, over than a year ago	Yes, less than a year ago	No, never
16-F. I have been slapped or kicked	□ 1	□ 2	□ 3	□ 4

Table A1.3 shows the different categories and subcategories that were used. Cronbach's alphas are calculated separately for 'as a child' and 'as an adult', per domestic violence category.

Table A1.3: Variables measuring experiences of domestic violence as a victim

Category	*Alpha per category*	*Subcategory*	*Alpha per subcategory*
Psychological	As a child, α=.74,	Humiliate (2 items)	Adult: α=.75
	As an adult, α=.62	Restrict contact with others (4 items)*	Adult: α=.85
		Restrict freedom (4 items)*	Adult: α=.90
Physical	As a child, α=.75	Threaten (2 items)	Child: α=.66, Adult: α=.76,
	As an adult, α=.84	Push, hold too hard, confine (3 items)	Child: α=.79, Adult: α=.74
		Hit, kick, hit with objects, cut, burn (4 items)	Child: α=.61, Adult: α=.71
Sexual	As a child, α=.85	Sexual threats, exhibitionism (3 items)	Child: α=.75, Adult: α=.64
	As an adult, α=.83	Sexual assault, rape (3 items)	Child: α=.80, Adult: α=.82

**n.a. for childhood experiences*

If any of the items within a category (see Table 3) was answered confirmatively, we asked the respondent to report who the perpetrators were, and how often the violence had happened. The following answer categories were used:

- Who was/were the perpetrator(s)?
  - My spouse/partner
  - My ex-spouse/ex-partner
  - My parent(s)
  - My child(ren)
  - Other family member within household
  - Other family member outside household
  - Friend of the family

- How often did it happen?
  - Once
  - A couple of times
  - More often than once a year, but less often than once a month
  - More often than once a month, but not every day
  - (almost) every day
  - It varied

The question 'how often did it happen' was not applicable for psychological violence, because the questions were formulated in such a way that occasional events did not count. For example, an item in the subcategory 'humiliating' was formulated as 'someone ridiculed me on a regular basis'.

Specific experience with domestic violence, as an adult perpetrator

The same categories that were used to measure victim experience were also used to measure if the respondents had been perpetrating domestic violence in their adult life. We anticipated that the questions about being a perpetrator of domestic violence could be even more sensitive or threatening to answer for some of the respondents than the 'victim items'. Therefore each of the perpetrator items got a third answer possibility; the respondent could tick one of the following answer categories: 'yes', 'no' and 'I'd rather not answer this question'.
Example of a perpetrator question:

	Yes	No	I'd rather not answer this question
D. Have you ever, as an adult, slapped or kicked a partner, friend or family member?	□ 1	□ 2	□ 3

Table A1.4 shows the different categories and subcategories that were used. Cronbach's alphas were calculated per category[1].

[1] recoding scheme: 'no'=0, 'rather not answer'=1, 'yes'=2.

Table A1.4: Variables measuring experiences of domestic violence as an adult perpetrator (1 item per subcategory)

Category	*Alpha (per category)*	*Items*
Psychological	.77	Humiliating
		Hurtful remarks
Physical	.82	Threatening with physical violence
		Hitting or kicking
		Other forms of physical violence
Sexual	.78	Unwanted sexual touching
		Threatening sexual assault, rape

Emotions

Feelings of shame, fear, and helplessness, as well as feelings that she somehow caused her partner to be abusive and thus deserves to be abused are frequently reported by abused women (Rodgers 1994, Campbell & Soeken 1999, WHO 2002).

If any of the items within a subset of questions (see Table) was answered confirmatively, we asked the respondent after that subset to report how he/she felt when the violence had happened. A four point scale was used with the categories 'not at all', 'hardly', 'pretty much', 'very much', with an extra category labeled 'sometimes', for each of the following emotions:

- I felt ashamed
- I felt like it was normal
- I felt powerless
- I felt afraid
- felt like it was justified

To measure how the perpetrators felt when the violence happened, a similar question structure was used, with the following emotions:

- I felt guilty
- I felt like it was justified
- I felt sorry
- I felt ashamed
- I felt strong

Reporting of the violence

If any of the items within a subset of questions (see Table) was answered confirmatively, we asked the respondent if he/she had told someone about the violence, or why not. The following answer categories were used (multiple answers were allowed):
Told someone:

- Police
- Friends, family, acquaintances
- General practitioner
- Bureau for female affairs
- Safe house
- Bureau for victim assistance
- Mental health professional
- Other

Why not:

- Don't like to talk about it
- Not serious enough
- Too afraid
- Don't want to betray the perpetrator
- They would not be able to help me
- I don't know who to tell
- I don't need help
- Other

Data cleaning

Data cleaning was carried out in three steps: first recoding missing values, second aggregating scores on experiences with domestic violence into (sub)categories, and third calculating the severity of the violence experienced.

Missing values

The recoding of missing values was executed based on three main patterns in missing data (de Leeuw et al., 2003):

1. Data are missing systematically by design (e.g. because of questionnaire routing when some items are not applicable).
   - Data missing systematically by design were treated as system missing values, lowering n (e.g. further questions on experienced violence are only applicable for victims).

2. All data are missing after a certain point in the questionnaire (partial non-response).
   - For questionnaires where the remaining part of the questionnaire was empty after an omitted item, missing data were also treated as system missing values.

3. Data are missing for some items for some respondents (item non-response).
   - Omitted items that were followed by filled in items were recoded as 'skipped'.

Prevalence and severity

There is a need to create separate scores for the prevalence and severity of physical and sexual violence because the majority of the population is expected not to be a victim, or to have only minor experiences. Such an extremely skewed distribution makes the mean, and even the median inappropriate, violates the assumptions of many statistical procedures, and also creates problems with outliers. Moreover, the distribution is so skewed that no transformation is sufficient to normalize it. Separate prevalence and severity scores are one way to create meaningful measures of central tendency and to deal with the outlier problem. An overview of different types of prevalence and severity scoring is given in Straus (2001).

To distinguish victims from non-victims and calculate the prevalence (the percentages of self-reported victims and perpetrators), the detailed items ware summarized in a following way:

» The individual items were converted into eight subcategories (see Table) and then into three category variables: 'psychological violence', 'physical violence' and 'sexual violence'.

» For each (sub) category, four separate variables were created: 'as a child' and 'as an adult, over a year ago', 'as an adult, less than a year ago', 'as an adult' (total). For each of these variables, the possible scores were 'yes', 'no', and 'skipped'. If a respondent reported having experienced one or more of the items within a category, he/she got the code 'yes' for that category. If the respondent denied to have experienced any items within a category, he/she got the code 'no' for that category. If the respondent would rather not answer a specific item, she / he probably just skipped the item. The following scheme was used to decide whether a subcategory was coded 'yes', 'no' or 'skipped':

Scores on the items within the category	category code
» One or more 'yes'	yes
» All 'no'	no
» Some 'no', some skipped	skipped
» All skipped	skipped

So at least one 'yes' within the category counts as a 'yes' for that category, even if other items within the category are skipped. If some items in a category are skipped, and others are filled in with 'no's', it's not clear whether or not the respondent is a victim, so that category is coded as 'skipped'.
The same procedure was used to create three variables in reference to perpetrating domestic violence (psychological, physical and sexual, all as an adult), with the following scheme:

Item code	(sub)category code
» One or more 'yes'	yes
» All 'no'	no
» Some 'no', some skipped or 'rather not answer'	skipped
» All skipped or 'rather not answer'	skipped

Severity

To measure the severity of the violence experienced, we used two methods: the severity weighted scale method of Straus (2001) and the dichotomous score 'minor only'/'severe' from the Revised Conflict Tactics Scale (Straus et al., 2004).
For both these methods, each form of physical or sexual violence gets a weight which reflects the injury producing potential[1]. The following weights were used:

- Psychological violence, all forms: 1
- Weights for physical violence
  - Threat, push, hold too hard, confine: 1
  - Kick, hit: 2
  - Hit with objects: 3
  - Burn: 5
  - Stab: 8
- Weights for sexual violence
  - Sexual threats, exhibitionism: 1
  - Sexual assault: 3
  - Rape: 8

For the severity weighted scale, a sum score of all weighted experiences is calculated. For the dichotomous scale, respondents who have experienced only minor forms of violence (weight 1) get a score of 1, and respondents who have experienced severe forms of violence (weight>1; with or without minor forms), get a score of 2.

[1] Sexual violence was not weighted by Straus & Gelles

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Annex 2: Technical Report - Data Collecting

Introduction

Domestic violence is a sensitive subject and asking questions about it may evoke defensive, suspicious and anxious reactions. Especially if the respondents are not convinced they are part of a random sample, they may feel as if the researcher suspects them to be involved in domestic violence and therefore approaches them.

We anticipated that drawing a random sample from the population from a sampling frame like the governmental registry office and then approach the intended respondents at their homes, either personal, by email or by means of a telephone call, would lead to suspicious reactions and low response rates. Approaching people at home for scientific research is not common practice in Curaçao, which augments the risk of misinterpreting the motives of the researcher.
Therefore, we used waiting area intercept surveying as sampling technique. In an intercept survey, potential respondents are approached by a recruiter (intercepted) and invited to participate in the survey (Diamond, 1994).

A pilot study took place in 2008 (Rückert, 2009). A self-administered anonymous questionnaire (SAQ) was used, but the length and complexity of the questionnaire made it very difficult to participate for some respondents, especially the elderly and lower educated people. We offered the respondents in the current study the choice to answer the questions in the questionnaire by means of a face-to-face (FtF) interview instead of the SAQ, to tackle this problem: each respondent could personally decide with which way of participating in the study he or she felt most comfortable.

Sample

We used a cross-sectional study design. Our study population was defined as: adult (18+) Papiamento or Dutch speaking inhabitants of Curaçao. Because we used waiting area intercept surveying as sampling technique, institutionalized people (e.g. prison, mental hospital, etc.) were excluded. Language was an inclusion criterion: only people who had an adequate command of Papiamentu or Dutch could participate (these are the most spoken languages in the households of 91% of the Curaçao population (CBS NA, 2001)).

Sample size

The pilot study showed that 46% of the respondents had been a victim of domestic violence at some point in their lives. Based on this, the required sample size was calculated using the following formula:

$n \geq \frac{z^2 . p(1-p)}{a^2}$ with z=1.96 (95% confidence interval), a=.05 (5% error margin) and p=.5.

This indicated that at least a total of 382 respondents would be needed. We aimed for at least 764 respondents; 382 men and 382 women.

To assess the prevalence of domestic violence in different population segments, defined by gender and age, we intended to have a maximum error margin of 10% for each of the following segments:

- Young adults (men/women aged 18-30)
- Adults (men/women aged 31-49)
- Elderly (men/women aged 50+)
- With a=.10 and p=.5, the minimal desired number of respondents is 96 for each of the six population segments.

Training of the interviewers

Four experienced interviewers were trained to execute the fieldwork. The experience of the interviewers consisted of various projects for the Central Bureau of Statistics (like the Census) and of previously executed health research projects.
Two researchers of the Public Health Research and Policy Unit trained the interviewers. The training consisted of two sessions. The first session started with a presentation about the pilot study that had been done in the previous year. The presentation consisted of information on the background and goals of the project, the results and limitations of the pilot study and what the intended role of the interviewers was:

- to approach potential respondents and persuade them to participate in the study
- to offer the respondents to choose between either the SAQ or the FtF interview
- to collect and store filled in SAQ's
- to interview respondents who preferred the FtF interview
- to report the number of refusals

To get familiar with the questionnaire, the interviewers filled in the questionnaire by themselves (SAQ mode). Next, the questionnaire was discussed. The interviewers suggested some minor modifications, mostly for fine-tuning the language in the Papiamentu version. The researcher responsible for the development of the questionnaire was not a native speaker and could not assess the quality of the translation, so the suggested improvements were highly appreciated.
Face-to-face interviewing techniques were trained in the next session. The interviewers split up in pairs and practiced interviewing each other.

Fieldwork

The fieldwork took place during two months in 2009, in four public waiting rooms on Curaçao: the governmental registry office, the biggest local health insurance company, a governmental food handling permit distribution unit, and a medical facility. These locations are visited by citizens and clients of all social strata and waiting times are, in general, at least an hour, which gives ample time to fill out the questionnaire.

The people in the waiting rooms were approached by one of interviewers, with the request to participate in a local survey of the Medical and Public Health service and to receive an incentive – a fabric wallet or a key chain – after completing the questionnaire. A total of 816 completed questionnaires were collected (see paragraph 0 for demographic details).

All participants were offered the choice to fill in the questionnaire anonymously or have an interviewer read the questions out aloud and note down the answers for them. A respondent personally can decide with which way of participating in the study he or she feels most comfortable Therefore this study uses a mixed-mode design, in which each respondent is given a mode choice.

During data collection, one of the researchers was present to tend the collected questionnaires and to supervise the interviewers. The interviewers worked 3-4 hours per day and collected about 20 questionnaires each. The researchers kept daily scores on demographic characteristics of the group of respondents and provided the interviewers with additional instructions, to fulfill the targeted amounts of respondents within each gender- and age groups. Elderly were somewhat underrepresented, therefore additional fieldwork was carried out in social clubs for seniors.

Response rates

Response rates show the percentage of people who completed a survey out of the total number of people targeted. In intercept surveys, the response rate is the number of total surveys, divided by the number of qualified, targeted respondents approached by interviewers.
The interviewers kept scores on the number of hard refusals. These were not encountered very often; not more than once or twice a day. Refusals of persons who were unable to participate were not counted, like people who could not participate due to language barriers or because it was 'just their turn' when the interviewer was explaining the procedure. The interviewers reported that sometimes they felt like people pretended not to understand, instead of refusing to participate (especially in one location), which may be seen as a soft refusal. We rounded up the number of counted hard refusals to account for the not registered 'soft refusals'.

Table A2.1: Response rates for different locations

	Refusals (hard + soft)	Responses	Response rates
governmental registry office	20	380	0.95
governmental permit distribution	45	180	0.80
health insurance company	9	156	0.95
social clubs for seniors	7	53	0.88
medical facility	3	47	0.94
Total	84	816	0.91

Given the length and complexity of the survey instrument, response rates exceeded expectations for the intercept sample. Nine out of ten respondents approached agreed to complete the questionnaire or interview. Several factors helped: well-trained, friendly interviewers, the incentives, and the lack of other available activities in the waiting areas.

Table 2 shows the gender and age distribution of the respondents. 75% of the respondents were born in Curaçao, 4% on other islands of the Netherlands Antilles, 8% in the Netherlands and 13% elsewhere.

Table A2.2: Gender and age of respondents

		Men	*Women*	*Total*	*percentage*
Age	18-30	95	142	237	29
	31-49	111	209	320	39
	50+	119	140	259	32
Total		325	491	816	100
percentage		*40*	*60*	*100*	

According to the most recent Census in 2001 (Netherlands Antilles, 2002), 29% of the Curaçao population was aged 18-30, the two other age categories in Table A2.2 each held 40.5% of the population. Compared to the general population, the youngest age category was overrepresented and the oldest age category was underrepresented in our sample ($\chi2(2)=61.6$, $p<.001$). Women were slightly overrepresented, too ($\chi2(1)=5.8$, $p<.05$): 56% of the population was female during the Census in 2001.

Almost half of the respondents had no education or only pre-vocational secondary education and 22% have secondary vocational education (Table A2.3).During the census of 2001, 11% of the population fell in the higher professional education / university category and 24% no education or only primary education.In our sample, higher educated people are overrepresented and people in the lowest educational category are underrepresented ($\chi^2(23)=126.5$, $p<.001$).

Table A2.3: Level of education of respondents

		count	*percentage*
Education	no education/ primary education	84	11
	pre-vocational secondary education	292	37
	secondary vocational education	172	22
	Sen. gen. secondary education / pre-university education	86	11
	higher professional education / university	162	20
Total		816	100

[1] In Dutch: LBO / MAVO / VSBO

[2] In Dutch: SBO / MBO

[3] The three middle categories are not classified in exactly the same manner as the Census data

Table A2.4 shows approximately a third of the respondents have never been married (yet) and 55% are married or cohabiting. The Census data do not distinguish between 'never married' and 'cohabiting'; the category 'unmarried' holds 42% of the population, married 43%, divorced 8% and widow(er) 6%. Unmarried people are overrepresented and married people are underrepresented in our sample ($\chi^2(3)=23.7$, $p<.001$).

Table A2.4: Marital status by age

	Never married	*Cohabiting*	*Married*	*Divorced*	*Widow(er)*	*Total*
18-30	62	23	14	1	0	100
31-49	24	22	41	12	2	100
50+	14	9	53	13	11	100
Total	32	18	37	9	4	100

The average household size is 3.6 persons; 2.2 for households without children and 4.4. for households with children. The percentage of households with children is highest for respondents between 31 and 49 years old (81%) and lowest for respondents aged 50 or older (38%). According to the Census 2001 data, 44% of the Curaçao population lives in households without children. People living with children are overrepresented in our sample ($\chi^2(1)=6.8$, $p<.01$).

Table A2.5: Household size by age

		without children	*with children*	*total*
percentage	18-30	37	63	100
	31-49	19	81	100
	50+	62	38	100
average household size	18-30	2.5	4.8	3.9
	31-49	2.3	4.2	3.8
	50+	2.1	4.6	3.0
Total	percentage	37	63	100
	average household size	2.2	4.4	3.6

Three-quarters of the respondents were employed (Table A2.6). Working people are overrepresented: 55% of the population had a job during the Census of 2001($\chi^2(1)=117.2$, $p<.001$).

Table A2.6: Employment and health insurance

						Health insurance:
Employed:		*SVB1 & fam.*	*civil servants & fam.*	*Pro Pauper*	*other*	*total*
Yes	74	63	13	4	20	100
No	26	30	10	28	31	100
Total	100	54	12	10	23	100

In social scientific research on Curaçao, someone's type of health insurance is often used as an indicator for social economic status (SES); employees with an average income (and their family members) are insured with the Social Security Bank (SVB), civil servants and their family members have their own insurance, and for the poor, free medical care is available through the PP (pro pauper) system. Table 6 shows over half of the respondents has a SVB health insurance.

[1] Employees earning less than ANG 57,174 (USD 32.670) yearly (2009)

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